

Examining the Use and Effectiveness of a Help Desk in Providing Support for Self-Administered Web Interviews

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Introduction

Researchers are beginning to utilize the World Wide Web as a mode for survey data collection, either as a stand-alone instrument or as part of a mixed mode approach. While the use of the Web as a survey mode presents some advantages over other methods such as mail or telephone, new challenges have arisen. One such challenge is ensuring that respondents are able to overcome technical difficulties they may experience while attempting a self-administered Web interview. Respondents may also misunderstand, misinterpret or be confused about the meaning of a given survey question, and not have a trained professional to turn to for clarification as they would during a telephone interview. Some research organizations have begun providing toll-free telephone numbers to web respondents where trained professionals can assist them with issues ranging from lost passwords to item related questions.

This analysis presents results from two national surveys; one of students enrolled in and another comprised of postsecondary faculty employed by postsecondary education institutions in the US and Puerto Rico, both sponsored by the US Department of Education's National Center for Education Statistics. The analysis shows that receiving assistance from a help desk agent leads to a completed interview (either full or partial) in a high proportion of cases that call-in for assistance. The analysis also shows that among these completed cases, a relatively small amount of time elapses between contact with the help desk and completion of an interview. Additional analyses explore why respondents call help desks, the frequency of multiple calls from respondents and whether or not these multiple contacts were for assistance with the same or different issues.

The 2004 National Study of Faculty and Students

The 2004 National Study of Faculty and Students combines two major data collection activities conducted by RTI International for the U.S. Department of Education's National Center for Education Statistics (NCES): The National Study of Postsecondary Faculty (NSOPF) and the National Postsecondary Student Aid Study (NPSAS).

The faculty component (NSOPF) was conducted to provide a national profile of faculty and instructional staff in public 2-year and 4-year and private not-for-profit 2-year and 4-year

postsecondary institutions. The Student component (NPSAS) was conducted to provide a national profile of students attending less-than-2- year institutions, 2-year colleges, and 4-year colleges and universities, and to provide detailed information on how students and their families pay for postsecondary education. In all, approximately 36,000 faculty and 109,000 students were sampled for their respective surveys.

Both surveys utilized a mixed-mode approach to conduct interviews with sampled faculty and students. Respondents were given the option of completing a self-administered web version of the instrument, or completing the interview via Computer-Assisted Telephone Interviewing (CATI). Respondents who did not complete the self-administered web survey after a set time period were contacted by a telephone interviewer. Sample members could also call-in to the study's interviewing staff to complete a CATI interview, A single web-based instrument was used for both the self-administered and CATI data collection from web nonrespondents.

Providing a Help Desk for Respondents

In order to provide technical assistance to those respondents who experienced problems completing the self-administered web questionnaire, both the student and faculty studies were staffed with a specially trained group of telephone interviewers who acted as help desk agents during data collection. Project materials used for advance sample member contact, as well as the project websites, prompted respondents to use a toll-free telephone number to reach each survey's help desk. Upon calling the hotline, callers were presented with a prerecorded message that offered respondents the option to connect to a telephone interviewer if they wanted to complete a telephone interview, or connect to a help desk agent if they had questions related to the online interview.

Help desk agents were trained to answer any calls received from the help desk hotline, as well as conduct telephone interviews as needed. Help desk agents assisted sample members with questions about the web instruments, and provided technical assistance to sample members who experienced problems while completing the self-administered web interview. In addition to various technical issues covered in training; security issues, computer capability requirements,

display settings, operating system issues, browser settings and internet service provider issues, help desk agents were reminded that sample members have busy lives and many competing constraints on their time. Keeping this in mind, help desk agents were trained to offer respondents the option of completing an interview over the telephone if the technical issue could not be resolved in five minutes or less. The multi-mode approach to data collection utilized by both surveys allowed respondents to report incidents to the help desk using a variety of contact methods. Faculty and students could reach the help desk to report problems and receive technical assistance by calling the toll-free number provided on project materials and speaking to a live agent, leaving a voicemail during hours when RTI call centers were closed or sending an email to the project (email address was provided in contact materials and on the survey web sites). Help desk agents also responded to voice-mail and e-mail messages left by respondents when RTI's Call Centers were closed.

In order to gain a better understanding of the problems encountered by faculty and students attempting to complete their respective interviews over the Web, a software program was developed to record each help desk incident that occurred during data collection. The program enabled help desk agents to record and track all correspondence with faculty and student sample members. For each contact, help desk agents confirmed contact information for the sample member, recorded the type of problem, a description of the problem and resolution, incident status (pending or resolved), and the approximate time it took to assist the caller.

Observations

Table 1 displays the number of help desk incidents recorded by each survey. Overall, 3860 individuals, representing approximately eleven percent of the faculty sample contacted the help desk and reported a total of 5151 incidents. A much smaller percentage of the student population sampled (2 percent) contacted the help desk for their survey, logging a total of 1966 incidents.

Table 1. Number of Help Desk Contacts

	Number of Contacts	Individual Cases	Percent of Total Survey Sample
NSOPF	5151	3860	10.83
NPSAS	1966	1823	1.67

Table 2 presents the frequency by which faculty and students utilized different modes available to them when contacting the help desk. A majority of faculty (67 percent) contacted the help desk via telephone, with email contact favored by the next largest group (22 percent). In general, students favored using email to contact the help desk (52 percent), followed closely by telephone (47 percent).

Table 2. Source of Help Desk Inquiries

Source	NSOPF		NPSAS	
	Number	Percent	Number	Percent
Email	1,133	22.00	1,017	51.73
Telephone	3,464	67.25	925	47.05
Voice Mail	511	9.92	21	1.07
Other	43	0.83	3	0.15
Total	5,151	100.00	1,966	100.00

An equal percentage of the help desk contacts (21 percent) made by faculty were related to questions related to the questionnaire or study, or a desire to complete the survey over the telephone (see table 3). Other problems included problems with browser settings and computer or both (14 percent), and requests for study ID and or passwords to access the web survey (12 percent). The majority of the help desk contacts (61 percent) made by students were requests for study ID and/or password. Other problems included general questions about the study or questionnaire (11 percent), calls related to completing the interview over the telephone (10 percent) or problems with browser settings and computer problems (9 percent).

Table 3. Type of Help Desk Problems

Type of Problem	NSOPF		NPSAS	
	Number	Percent	Number	Percent
Browser Setting/Computer Problems	693	13.45	171	8.70
Called in to Complete Interview	1,078	20.93	203	10.33
Study ID/Password	626	12.15	1,198	60.94
Questionnaire or Study Questions	1,078	20.93	216	10.99
Other	1,676	32.54	178	9.05
Total	5,151	100.00	1,966	100.00

Table 1 displayed the number of help desk contacts logged by each survey and the number of individual cases who contacted the help desk for each survey are displayed. Tables 4a and 4b display information on the individual cases in each study who contacted the help desk for the same, or different reasons. Overall, 481 faculty contacted the help desk twice, with a majority (62 percent) stating a different reason for contacting the helpdesk both times. Of the 269 faculty

who contacted the help desk three or more times, eighty percent stated a different reason for the additional contacts. Students who contacted the help desk twice (108) stated the same reason for calling slightly more frequently than those who cited different reasons for contact, while a greater percentage (73 percent) of the small number of students (15 in total) who contacted the help desk 3 or more times stated different reasons for calling.

Table 4a. NSOPF: Number of Multiple Calls to Help Desk by Same or Different Reason

Number of contacts	Same Reason		Different Reason		Total	
	Number	Percent	Number	Percent	Number	Percent
2	181	37.62	300	62.37	481	100.00
3 or more	55	20.44	214	79.55	269	100.00

Table 4b. NPSAS: Number of Multiple Calls to Help Desk by Same or Different Reason

Number of contacts	Same Reason		Different Reason		Total	
	Number	Percent	Number	Percent	Number	Percent
2	58	53.70	50	46.29	108	100.00
3 or more	4	26.67	11	73.33	15	100.00

Tables 5a and 5b present an analysis of the type of problem reported by respondents and the modes used to report said problems in both surveys. Faculty who used email to contact the help desk were more likely to report browser settings or computer problems than any other individual reason (32 percent). Those contacting the help desk via telephone were most likely to report that they were calling in to complete an interview (29 percent), and 53 percent of those who left voicemails were coded as other issues or problems ($\chi^2 = 1291, p < 0.001$).

In contrast, the majority (92 percent) of students who used email to contact the help desk did so to request a study ID or password. Students contacting the help desk via telephone were also more likely to report that they required assistance obtaining their study ID or password (28 percent) ($\chi^2 = 1060, p < 0.001$).

Table 5a. NSOPF: Type of Help Desk Problem by Source of Inquiry

Type of Problem	Email		Telephone		Voice Mail		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Browser Setting/Computer Problems	362	31.95	263	7.59	53	10.37	15	34.88	693	13.45
Called in to Complete Interview	5	0.44	997	28.78	75	14.68	1	2.33	1,078	20.93
Study ID/Password	265	23.39	348	10.05	12	2.35	1	2.33	626	12.13
Questionnaire or Study Questions	36	3.18	939	27.11	101	19.77	2	4.65	1,078	20.93
Other	465	41.04	917	26.47	270	52.84	24	55.81	1,676	32.54
Total	1,133	100.00	3,464	100.00	511	100.00	43	100.00	5,151	100.00

Table 5b. NPSAS: Type of Help Desk Problem by Source of Inquiry

Type of Problem	Email		Telephone		Voice Mail		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Browser Setting/Computer Problems	65	6.39	106	11.46	0	0.00	0	0.00	171	8.70
Called in to Complete Interview	0	0.00	203	21.95	0	0.00	0	0.00	203	10.33
Study ID/Password	940	92.43	255	27.57	3	14.29	0	0.00	1,198	60.94
Questionnaire or Study Questions	0	0.00	213	23.03	3	14.29	0	0.00	216	10.99
Other	12	1.18	148	16.00	15	71.43	3	100.00	178	9.05
Total	1,017	100.00	925	100.00	21	100.00	3	100.00	1,966	100.00

The overall goal of providing a help desk to respondents was to be able to address technical concerns, along with any other general questions in order to aid the respondent in completing an interview, regardless of mode. Of the 5,151 incidents logged by help desk agents assisting faculty sample members, 3,967 (77 percent) were connected with a fully or partially completed interview. Turning to the student survey, 1563 of the 1966 incidents logged by the help desk agents (80 percent) were connected to a fully or partially completed interview.

Table 6 displays the mode in which faculty and student interviews who contacted the help desk were completed. A majority (54 percent) of faculty surveys were completed over the telephone either by a telephone interviewer (32 percent) or by a help desk agent working with the respondent (22 percent), while 46 percent of the help desk contacts resulting in a completed interview were done via the self administered web instrument. For students, 58 percent of those who logged one or more help desk contacts completed the survey using the self administered web instrument, while 28 percent completed with a telephone interviewer and 14 percent completed the interview with a help desk agent as a result of their call.

Table 6. Mode of Completion for Help Desk Inquiry Cases

Mode	NSOPF		NPSAS	
	Number	Percent	Number	Percent
Web	1,828	45.75	904	57.84
CATI	1,280	32.03	442	28.28
Completed with HD agent	888	22.22	217	13.88
Total	3,996	100.00	1,563	100.00

Another goal associated with providing a help desk to respondents was decreasing the amount of time it takes for a respondent to complete an interview after being sampled and contacted. Certainly, technical problems or questions can thwart the efficiency of a self administered survey, and providing a help desk was a measure to avoid delays in collecting completed interviews due to questions or concerns of any nature. In both studies, a majority of help desk incidents resulted in a full or partially completed interview within the first week after contact with the helpdesk (table 7). Faculty survey results show that 62 percent of help desk contacts resulted in a full or partially completed interview within a week after contact, with 44 percent completing an interview on the same day the help desk was contacted. Similarly, a majority of students who contacted the help desk (54 percent) completed or partially completed

an interview within a week after contact, with 37 percent completing an interview on the same day the help desk was contacted.

Table 7. Time to Complete After Help Desk Inquiry

Time to Complete	NSOPF		NPSAS	
	Number	Percent	Number	Percent
Same Day	1749	44.09	577	36.92
Within 1 Week	699	17.62	270	17.27
Within 2 Weeks	231	5.82	107	6.85
More Than 2 Weeks	816	20.57	429	27.45
Called in After Completed	472	11.90	180	11.52
Total	3,996	100.00	1,563	100.00

Tables 8a and 8b display the amount of time expired between help desk contact and a completed interview by the mode of interview completion. Faculty surveys resulting in a full or partially completed interview were more likely to occur on the same day of help desk contact regardless of whether the surveys occurred via the self administered web interview (27 percent completed on the same day), a CATI interview with an interviewer (33 percent completed on the same day) or with a help desk agent, where the highest percentage of same day completes was expected and 93 percent completed on the same day ($\chi^2 = 1190, p < 0.001$). Student interviews showed slightly more variation. Most contacts who completed a full or partial interview over the web did so on the same day the help desk was contacted (33 percent), while a majority of interviews conducted with a CATI interviewer were done so more than 2 weeks after contacting the help desk (54 percent). All of the student contacts that completed a full or partial interview with a help desk agent did so on the same day they contacted the help desk ($\chi^2 = 636, p < 0.001$).

Table 8a. NSOPF: Mode of Completion by Time to Complete

Time to Complete	Web		CATI		Completed with HD Agent		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Same Day	498	27.48	421	33.23	830	93.47	1,749	44.09
Within 1 Week	402	22.19	261	20.60	36	4.05	699	17.62
Within 2 Weeks	127	7.01	94	7.42	10	1.13	231	5.82
More Than 2 Weeks	452	24.94	361	28.49	3	0.34	816	20.57
Called in After Completed	333	18.38	130	10.26	9	1.01	472	11.90
Total	1,812	100.00	1,267	100.00	888	100.00	3,967	100.00

Table 8b. NPSAS: Mode of Completion by Time to Complete

Time to Complete	Web		CATI		Completed with HD Agent		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Same Day	303	33.52	57	12.90	217	100.00	577	36.92
Within 1 Week	210	23.23	60	13.57	0	0.00	270	17.27
Within 2 Weeks	56	6.19	51	11.54	0	0.00	107	6.85
More Than 2 Weeks	188	20.80	241	54.52	0	0.00	429	27.45
Called in After Completed	147	16.26	33	7.47	0	0.00	180	11.52
Total	904	100.00	442	100.00	217	100.00	1,563	100.00

Tables 9a and 9b display the type of problem reported by mode of interview completion. The individual issue most frequently reported by faculty members completing a full or partial interview on the web was a question about the study or questionnaire (24 percent). One quarter of the faculty respondents who completed a full or partial interview with a CATI interviewer reported to a help desk agent that they simply called in to complete an interview. Similarly, faculty respondents who completed a full or partial telephone interview with a help desk agent reported that they called in to complete an interview more frequently than any other individual reason ($\chi^2 = 1430, p < 0.001$). Students who completed a full or partial interview on the web (76 percent) or telephone (59 percent) were most likely to report that a problem related to their study ID and/or password was the reason for their call to the help desk. Student respondents who completed a full or partial telephone interview with a help desk agent reported that they called in to complete an interview more frequently than any other individual reason ($\chi^2 = 847, p < 0.001$).

Tables 10a and 10b display the amount of time expired between contact with the help desk and a full or partially completed interview by mode of help desk contact. Overall, a majority of faculty and student contacts completed a full or partial interview within 1 week of contacting the help desk. Faculty help desk contacts made by email were most likely (45 percent) to result in a full or partially completed interview within one week of contacting the help desk. When faculty contacts were logged by telephone, 67 percent of contacts resulted in a full or partially completed interview within one week.

Table 9a. NSOPF: Type of Help Desk Problem by Mode of Completion

Type of Problem	Web		Telephone		Completed with HD Agent		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Browser Setting/Computer Problems	300	16.41	202	15.78	82	9.23	584	14.61
Called in to Complete Interview	75	4.10	321	25.08	611	68.81	1007	25.20
Study ID/Password	389	21.28	104	8.13	4	0.45	497	12.44
Questionnaire or Study Questions	442	24.18	244	19.06	90	10.14	776	19.42
Other	622	34.03	409	31.95	101	11.27	1,132	28.33
Total	1,828	100.00	1,280	100.00	888	100.00	3,996	100.00

Table 9b. NPSAS: Type of Help Desk Problem by Mode of Completion

Type of Problem	Web		Telephone		Completed with HD Agent		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Browser Setting/Computer Problems	87	9.62	39	8.82	14	6.45	140	8.96
Called in to Complete Interview	6	0.66	34	7.69	139	64.06	179	11.45
Study ID/Password	691	76.44	260	58.82	10	4.61	961	61.48
Questionnaire or Study Questions	73	8.08	66	14.93	8	3.69	147	9.40
Other	47	5.20	43	9.73	46	21.20	136	8.70
Total	904	100.00	925	100.00	217	100.00	1,563	100.00

Table 10a. NSOPF: Time to Complete by Source of Inquiry

Time to Complete	Email		Telephone		Voice Mail		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Same Day	138	17.49	1,460	53.03	142	36.32	9	26.47	1,749	44.09
Within 1 Week	219	27.76	372	13.51	98	25.06	10	29.41	699	17.62
Within 2 Weeks	80	10.14	119	4.32	32	8.18	0	0.00	231	5.82
More Than 2 Weeks	188	23.83	549	19.94	73	18.67	6	17.65	816	20.57
Called in After Completed	164	20.79	253	9.19	46	11.76	9	26.47	472	11.90
Total	789	100.00	2,753	100.00	391	100.00	34	100.00	3,967	100.00

Table 10b. NPSAS: Time to Complete by Source of Inquiry

Time to Complete	Email		Telephone		Voice Mail		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Same Day	166	20.67	409	54.75	2	15.38	577	36.92
Within 1 Week	189	23.54	77	10.31	4	30.77	270	17.27
Within 2 Weeks	63	7.85	42	5.62	2	15.38	107	6.85
More Than 2 Weeks	225	28.02	199	26.64	5	38.46	429	27.45
Called in After Completed	160	19.93	20	2.68	0	0.00	180	11.52
Total	803	100.00	747	100.00	13	100.00	1,563	100.00

A majority of contacts logged via voicemail (61 percent) also resulted in a full or partially completed interview within 1 week of help desk contact ($\chi^2 = 847, p < 0.001$). Student help desk contacts made by email were most likely (45 percent) to result in a full or partially completed interview within one week of contacting the help desk. When student contacts were logged by telephone, 65 percent of contacts resulted in a full or partially completed interview. Most contacts logged via voicemail (46 percent) also resulted in a full or partially completed interview within 1 week of help desk contact ($\chi^2 = 270, p < 0.001$).

Tables 11a and 11b compare the amount of time expired between a help desk contact and a full or partially completed interview and the problem reported by faculty and student help desk contacts. Among faculty help desk contacts citing browser problems, 61 percent resulted in a full or partially completed interview within one week. Nearly 93 percent of help desk contacts related to calling in to complete the survey were interviewed on the same day. In addition, a majority of cases contacting the faculty help desk for a study ID or password (53 percent) or with questions about the study or questionnaire (55 percent) were interviewed within 1 week of contact ($\chi^2 = 1449, p < 0.001$). Over 70 percent of student contacts related to browser issues resulted in interviews within 1 week of contact. Nearly 89 percent of student help desk contacts related to calling in to complete the survey were interviewed on the same day. Most contacts related to study ID or password were completed within 1 week (47 percent) while a majority of contacts posing questions about the study or questionnaire were not interviewed until 2 weeks or more had passed ($\chi^2 = 357, p < 0.001$).

Table 11a. NSOPF: Time to Complete by Type of Help Desk Problem

Time to Complete	Browser Setting/Computer Problems		Called in to Complete Interview		Study ID/Password		Questionnaire or Study Questions		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Same Day	200	34.78	883	87.86	134	27.02	258	33.42	274	24.49	1,749	44.09
Within 1 Week	147	25.57	52	5.17	130	26.21	166	21.50	204	18.23	699	17.62
Within 2 Weeks	50	8.70	17	1.69	37	7.46	58	7.51	69	6.17	231	5.82
More Than 2 Weeks	125	21.74	38	3.78	150	30.24	263	34.07	240	21.45	816	20.57
Called in After Completed	53	9.22	15	1.49	45	9.07	27	3.50	332	29.67	472	11.90
Total	575	100.00	1,005	100.00	496	100.00	772	100.00	1,119	100.00	3,967	100.00

Table 11b. NPSAS: Time to Complete by Type of Help Desk Problem

Time to Complete	Browser Setting/Computer Problems		Called in to Complete Interview		Study ID/Password		Questionnaire or Study Questions		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Same Day	63	45.00	159	88.83	258	26.85	32	21.77	65	47.79	577	36.92
Within 1 Week	38	27.14	4	2.23	196	20.40	25	17.01	7	5.15	270	17.27
Within 2 Weeks	11	7.86	0	0.00	74	7.70	10	6.80	12	8.82	107	6.85
More Than 2 Weeks	20	14.29	13	7.26	277	28.82	77	52.38	42	30.88	429	27.45
Called in After Completed	8	5.71	3	1.68	156	16.23	3	2.04	10	7.35	180	11.52
Total	140	100.00	179	100.00	961	100.00	147	100.00	136	100.00	1,563	100.00

Conclusions

The use of a help desk for faculty and student respondents proved beneficial in a number of ways. First, by giving respondents a variety of avenues by which to contact help desk agents to pose questions and seek assistance, both surveys involved in this analysis were able to enhance their response rates by completing interviews with respondents who may have been excluded if issues could not have been resolved. Second, the speed at which respondents were able to complete interviews, regardless of mode contributed to the efficiency of the data collection effort, saving both surveys valuable time locating, contacting and interviewing non-respondents who were unable to complete the interview on their own. Third, by recording the type of problems reported, the mode in which problems were reported and the amount of time it took to resolve issues and convert interviews researchers were able to provide rapid feedback to helpdesk agents, alerting them to the most frequently reported issues study wide, helping them to be better prepared for contacts from respondents.

Further, by recording the type of problems reported, the mode in which problems were reported and the amount of time it took to resolve issues and convert interviews, researchers can better prepare for future waves of data collection, anticipating problems and preparing solutions to further contribute to high response rates and efficient data collection, while maintaining a good relationship with respondents by supporting them with a professional staff ready to assist them.