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## How to increase the percentage of respondents in Internet research - facts and myths about online surveys

key words: online research, percentage of respondents, motivation to take part, behaviour typology, design of online surveys, elements increasing motivation to fill out questionnaires Abstract: Internet surveys have become very common as tools of social science research. Their overabundance and presentation (as pop-up windows) have resulted in them not being popular or welcome among respondents. Their presence on many WWW sites and in e-mails results in them being treated as spam, forced advertising and a complete waste of time. Oversurveying has brought about the opposite result which means that it is very difficult to draw anyone's attention to questionnaires and make them respond.

This article attempts to answer the questions - how to get respondents to fill out online surveys, what are the most motivating factors (material stimulators or any others)? How to get more people to complete the questionnaires? What kind of respondents are we dealing with online? What kind of percentage can we count on regarding online surveys?
The author presents the results and experiences of Internet research based on an author programme, the Research Management System, eResearch.pl and the results of research carried out abroad. The author also shows the advantages of online research and myths associated with doing research on the Internet.

Internet surveys have lately become very common as tools of social science research. However, their overabundance on various WWW sites and in e-mails have resulted in them not being very popular or welcome among respondents. People often treat them as spam, forced advertising and a complete waste of time. Over-surveying has brought about the opposite from the desired effect which means it is very difficult to draw anyone's attention to questionnaires and make them respond.

Because Internet surveys have becomes so common, around them created have been many myths. Unfortunately, many people falsely believe that a survey can be completed within 15 minutes and does not require any specific skill. This belief is strengthened by the fact that the Internet is full of mini-questionnaires which are confused with surveys. A wide variety of tools used to create mini-questionnaires results in them being quite popular and common, however, a short, one question survey has got nothing in common with a complex research tool that a regular survey is, preceded by a series of preparations, analyses and tests. Consequently, researchers deciding to carry out their work on-line have increasing problems with getting people to respond to their surveys.

This article attempts to answer the questions - how to get respondents to fill out on-line surveys, what are the most motivating factors (material stimulators or any others)? How to get more people to complete the questionnaires? What kind of rules to go by when constructing online surveys? What kind of respondents are we dealing with?

Firstly, let's examine the advantages of carrying out research through the Internet (Maccik 2005: 108):

1. faster collection of data and quicker response rate within the first few days of sending out the survey,
2. shorter time of carrying out the entire research project (faster collection of data, instant and automatic data input),
3. lower costs (no printing and postal costs, respondents' training or manual data input),
4. higher quality of data collected due to:
a. reduction of error in answer sheets (possibility to install mechanisms which make respondents fill out surveys completely),
b. reduction of human error, ie. in data input,
c. reduction of survey effects,
5. higher percentage of filled out questionnaires,
6. possibility of inserting animated graphics, audio or video files,
7. convenient to respondents, option to fill out when one chooses to,
8. possibility to reach specific target groups, otherwise not easily accessible,
9. almost unlimited scope,
10. possibility to individualise the survey (ie. depending on the age group),
11. possibility of quick reaction to filled out surveys.

Despite the numerous advantages, on-line surveys also have their disadvantages (Mącik 2005: 109):

1. frequent self selection of respondents (sample is predominantly comprised of volunteers who chose to take part,
2. possibility of the same person filling out the survey numerous times,
3. lack of representative sample of Internet user population to general population, even in countries where the Internet is widespread (generally Internet users are younger, better educated and more wealthy than people who do not use the Web),
4. shorter time of concentration in an on-line survey, respondents become tired after approximately $25-30$ questions,
5. decreasing response rate with longer survey length.

In the initial phase, when Internet surveys were something new, the response rate was very high, between $50-70 \%$. Presently, with surveys becoming more common and the phenomenon of oversurveying (Zając 2006: 168), the response rate has considerably decreased and is at a level similar to that of mail surveys, between 5-10\% (Mącik 2005: 109, Sobieszek 2006: 368).

An imperative factor, influencing the rate of unfinished surveys on-line is the average time it takes to fill them out. When a survey is about 10 minutes long, the forecasted percentage of unfinished surveys is only $9 \%$, while when the survey is 20 min . long, this percentage increases to $35 \%$ and when it is 30 min . long, the rate is $50 \%$.

Chart 1. Survey length (in minutes) vs. \% of unfinished surveys


Source: B. MacElroy, Variables influencing drop out rates in Web-based surveys, http://qmrr.com/articles/a2000/20000711.aspx

Another key element influencing the fill out percentage rate is the number of screens required to finish the survey. If the survey is 10 screens long, the drop out rate is $7 \%$, if it is 30 screens long - the drop out rate increases to $30 \%$, and when it is 45 - the rate is as high as $73 \%$.

Chart 2. Survey length (number of screens) vs. \% of unfinished surveys


Source: B. MacElroy, Variables influencing drop out rates in Web-based surveys, http://qmrr.com/articles/a2000/20000711.aspx

Regarding research carried out by the author, Spoleczna przestrzeń Internetu (Internet social space) the average time it took to fill out the survey was 22 minutes (those surveys which took less than 5 min . to fill out were rejected). Although, the number of screens the survey included was high ( 51 screens), surprisingly the response rate was also high, at $38 \%$.

Chart 3. Number of survey entries, number of filled out questionnaires, fill out percentage


Source: by author, based on Społeczna przestrzeń Internetu (Internet social space) survey.
Generally, based on Internaut behaviour, we can distinguish several categories of on-line survey respondents:

- those answering completely: these people answer all the questions, $25.3 \%$ of total respondents,
- those not answering at all: these people do not take part either because of technical difficulties or because, after seeing the first screen, they choose not to, $10.2 \%$,
- those who started answering and then dropped out: these people answer only some of the questions, $4.3 \%$,
- those who look through: these people read the survey but they do not answer any of the questions, $6.9 \%$,
- those who look through and drop out: these people read through some of the questions, 13.3\%,
- those who skip: these people read the whole survey but only answer some of the questions, $36 \%$,
- those who skip and drop out: these people do not read the entire survey and answer only some of the questions, $4 \%$.
D. A. Dillman suggests using several strategies in order to obtain a high percentage of filled out surveys and a low number of incompletely filled out questionnaires (Maccik 2005: 115116):
- contact the respondent frequently, it is advisable to contact the respondent at least three times, before sending the survey, when sending it, after sending it (thank you note or reminder),
- personalise contacts with respondent, do not send out an identical letter to everyone,
- use a short introductory letter, explain the goal and methodology of the research,
- offer the possibility of responding in a different way, have an option of a printed version send via traditional mail,
- interest the respondent; the first question should be attention grabbing and easy,
- limit the number of answers on a scale, maximum 5-6.
D. A. Dillman also proposes the following rules regarding the design of Web based surveys (Mącik 2005: 127-128):
- begin the survey with a welcome screen, motivating respondents, outlining the goal of the research, the authors and including the instructions,
- start with an interesting and easy first question included in its entirety on one page (without the necessity to scroll down) on the PC screen,
- use subdued colours,
- make the survey uniform (regarding tables, charts, etc.)
- include instructions on how to answer each question,
- do not force people to give answers,
- avoid difficult questions, open ones or those with multiple choice answers.

Imperative is the answer to the question as to how to encourage respondents to fill out surveys on-line. The simplest way to increase the feedback percentage is to use monetary gratification. Research carried out by B. MacElroy shows that a monetary prize greatly increases the fill out percentage rate. At $\$ 100$, the percentage of unfinished surveys was at $7 \%$, at $\$ 50$ - it was $10 \%$, and at $\$ 5-22 \%$.

Chart 4. Monetary gratification vs. percentage of unfinished surveys


Source: by author, based on B. MacElroy, Variables influencing drop out rates in Web-based surveys, http://qmrr.com/articles/a2000/20000711.aspx

Respondents taking part in research can be additionally motivated to take part in a lottery with prizes for those who have filled out the survey. The better the prize, the lower the number of unfinished surveys. Unfortunately, for the drop-out rate to be at $10 \%$, the jackpot must be set at $\$ 10000$.

Chart 5. The sum of prizes in a lottery [in dollars] vs. percentage of unfinished surveys


Source: by author, based on B. MacElroy, Variables influencing drop out rates in Web-based surveys, http://qmrr.com/articles/a2000/20000711.aspx

Obviously, monetary gratification is not the only factor which stimulates respondents to fill out the questionnaires. There are also psychological factors, such as interest in the research/survey, possibility to view the results (to compare them with those of others), or conviction that the respondent is unique (cf. Batorski, Olcon 2006: 114). The belief that one is exceptional is often used in Internet based surveys. For instance, we can read on a website, "If you see this survey, it means that we have chosen you specifically to take part in Megapanel PBI/Gemius survey".

Those designing Web based surveys need to remember about factors such as tiredness as a result of survey length or questions that are difficult to answer (open questions). That is why it is so imperative to take extra time in preparation of the survey; to eliminate questions that are similar to each other, to make the survey user friendly, to think carefully about the graphic layout. If one chooses multiple choice answers, they need to be made uniform so that the respondents can focus on the content and not on deciphering the structure of tools used.

Research carried out by the author shows that the most imperative factors increasing the percentage rate of filled out surveys are: detailed information on the research ( $92.8 \%$ ), amount of time it takes to complete the questionnaire ( $92.4 \%$ ) and survey anonymity ( $92 \%$ ). The least essential factors, on the other hand, are: informing the respondent of his exceptionality ( $55.7 \%$ ), informing that others have already completed the survey ( $66.6 \%$ ) and asking for respondent's private e-mail address ( $66.7 \%$ ).

Generally, respondents value credibility and honesty. They need to know who it is they are dealing with, what is the goal of the research and how will the data obtained be used. It is crucial then to introduce the researcher (or institution) to respondents and to fill them in on the subject matter of the research. Gaining respondent's trust this way will certainly influence his taking part in the research. Other elements which can be helpful are inserting the researcher's photograph or providing an official e-mail address (.edu, .org, .com). Transferring, then, to the survey itself should be as smooth as possible. Again, the first question needs to be simple and interesting in order not to discourage the respondent. The interface should also be user friendly and not irritating so that respondent can focus on the survey and not on decoding the tool's structure.

Chart 6. Factors increasing Web based surveys response percentage rate (data in \%)


Source: by author based on own research, $\mathrm{N}=255$; answers do not sum up to 100 as respondents could choose more than one option in their answer, summed up were responses decisively yes and rather yes.

Among the most motivating factors in filling out surveys, in first place was interest in the research (average 4.04 on a scale of 5, with 5 - very important, 1 - not important at all), then possibility to see the survey results (3.94), and length of survey (3.73). What is interesting is that this research results do not correspond to those of American researchers. For example, factors such as material gratification were of little importance (3.11). This is perhaps due to the fact that respondents generally do not believe in the possibility of receiving monetary gains for completing surveys since such methods are not frequently used by Polish researchers. Or else, this type of motivators may be associated with various kinds of pseudo lotteries or raffles available on the

Internet (and treated by many as spam) or with information distributed via traditional mail luring people with possibilities to win something or ensuring them that they have already won, which in most cases is just another marketing trick.

Chart 7. Factors motivating respondents to take part in research on-line


Source: by author, based on own research, $\mathrm{N}=255$; average responses were calculated, 1 - not an important factor, 5very important.

Respondents value their time and will not spend a lot of it on completing surveys on-line, $50.2 \%$ of people state that they will spend no more than 5 minutes on a questionnaire, $35.3 \%$ between 6 and $10 \mathrm{~min} ., 9.4 \%$ - between 11 and 15 min ., $2.4 \%-16-20 \mathrm{~min}$ and $2.8 \%$ - over 21 minutes. It should be noted that survey length is the second most imperative factor in motivating respondents to fill out surveys, while progress information is in fourth place.

Chart 8. Length of time that respondents are willing to spend on Web based surveys (data in \%)


Source: by author, based on own research, $\mathrm{N}=255$.
Interest in carrying out research through the Internet is continually growing. Between 1998 and 2005, the number of surveys performed via the Web or through the text message system has steadily increased. In 2005, close to 57000 people took part in Web based surveys (Katalog 2006: 12). Over $84 \%$ of researchers asked by the author declare that they wish to carry out research via the Internet ( $58.8 \%$ definitely yes and $25.2 \%$ probably yes), while $9.2 \%$ are not
interested ( $7.6 \%$ probably not and $1.6 \%$ definitely not). There are various tools on the Internet which aid people in the preparation and construction of a basic survey (cf. Szpunar 2007: 12-17). Most of them, however, offer only a simple summary of the results without the possibility to further process the data using statistical analysis. Services abroad possess a more interesting offer but their tools are most frequently available for a fee.

When designing an on-line survey, it is worth taking the time to take care of the necessary details in order to increase the response percentage rate. It is imperative to make the research credible and, this way, to convince respondents to take part. The more information available about the project, the greater the respondent interest. Of course, potential candidates need not be overwhelmed by too much information as it will be too cumbersome to read through all of it. It is also worth to inform on survey length and to ensure respondents of survey anonymity. Respondents need to feel comfortable and safe and know that the data provided by them will not be used by subjects unknown to them, ie. for commercial purposes. We need not ask people to provide their e-mail addresses as there are situations in which these get sold to advertisers. Respondents need to be convinced that it is worth taking the time to fill out the questionnaire. We need to remember that they will be more likely to take part if they are interested in the subject matter of the survey or if it pertains to them. Survey subject should be connected thematically to the place where it appears on the Web. For example, let's not include surveys on fishing on a discussion forum for single mothers.

The situation is simplified for researchers who decide to carry out target sample surveys. If their target group is students, they can send out invitations to discussion forums for students and if it is astrologers - to astrology discussion groups. In order not to be taken for spam, it is worth to first obtain the site administrator's approval before inserting invitations.

We can also take advantage of commercial mailing lists offered by many IT companies, however, such services are not free of charge. Also their effectiveness rate, according to some, is very low, at about $4 \%$ (Lizon). In order to obtain 400 filled out surveys, we would need to send mails to 10000 internauts, at a cost of 600 zl (net), if we wish to get 800 responses, the cost would be 1200 zl . If it is company doing the research, it can probably afford such costs but if it is a student, such a cost is a substantial one. Using commercial mailing lists is a relatively expensive option and there is no guarantee that the recipient will visit the link he was sent in the e-mail or decide to complete the survey. Or else, the e-mail may be treated the same way as hundreds of advertisements and simply thrown away without being opened.

It is worth, then, to take the time and create one's own free advertisements, inserting announcements with a request to fill out a survey in different places on the Internet, in order to reach the largest number and diversity of possible respondents, with a focus on forums, discussion groups and blogs. If we possess our own, extensive list of e-mails, it is also worth sending invitations to our friends and asking them to pass the survey on to their friends. This way we will be able to reach wider audiences.

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