# Increasing the response rate of the Comparative Candidate Survey

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**Abstract.** The main goal of the Comparative Candidate Survey is to collect data about the behavior and attitudes of parliamentary candidates regarding an array of political economic and social issues. This international project aims to study their opinions and characteristics and to illustrate similarities and differences based on their demographic and social characteristics. In Greece, the research has taken place since 2007 by the laboratory of Applied Political Research of the department of Political Science of Aristotle University of Thessaloniki (A.U.TH). The surveys are mainly conducted online (combination of web surveys with personal interviews - mixed-mode). The rapid development of technology in combination with the increasing use of the Internet in Greece during the last decade, allow us to utilize the latter for research purposes permitting us to conduct political surveys based exclusively on web tools. This paper intends to explore ways that will lead to the improvement of research achieving increase of the response rate of the candidates and making the sample more representative. For this reason an experiment is implemented in order to investigate techniques which could reduce the number of questionnaires that are abandoned before completion, the so-called drop-outs. Therefore, we examine if the duration of the survey constitutes an inhibiting or stimulating factor for completing the questionnaire and for the participation in the survey.

**Keywords:** *web surveys, response rate, Comparative Candidate Survey*

## 1 Introduction

This paper, using the Greek candidate MPs' survey of 2015 as a case study, explores ways and methods to increase the response rate of surveys conducted online. Nowadays, web-surveys are becoming more and more popular among scholars and researchers, giving the opportunity of a rapid and low-cost survey to be conducted. Although the benefits of the web surveys are widely known or at least are not difficult to notice, there are ambiguities regarding the effectiveness or the credibility of this data collection method. However, the response rate of web surveys can be comparable to other more traditional data collection methods, especially when the email addresses of the respondents participating in the study are known.

The candidate MPs is a specific and limited group with accredited access to the Internet and it is easier to examine their response rate in the survey. Through an experiment implemented to the candidate survey of 2015, this paper explores ways to increase the responsiveness and representativeness of the sample. The main question that is addressed is if the duration of the survey is a significant factor that influences the completion of the questionnaire and restricts the drop-outs. The main objective is to collect as many responses as possible and increase the response rate of the sample in order to have more reliable and representative results.

## 2 Literature Review

**Web Surveys**

The research of candidate MPs conducted in this paper is mainly based on the internet and more specifically on web tools, such as web surveys. Web tools permit the conduct of fast and mainly low-cost surveys and hence they may conditionally constitute a credible alternative for the organization and conduct of social and political surveys (Andreadis, 2010). Another advantage of web surveys is the minimum time required to complete the survey, since the invitations are sent by the researcher massively via email and then the respondents themselves record their answers directly to the computer (self-administered survey). In this way data collection is faster, easier and often more reliable, as data input errors can be avoided. In addition, the information collected through web surveys tend to be more accurate especially regarding the most sensitive personal information, which is usually avoided in surveys conducted by face to face interview (Kreuter, Presser & Tourangeau, 2008). Therefore, the participation of people with divergent behaviors is encouraged due to the anonymity of the self-administered survey. However, it should be emphasized that as reported by Crawford et al. (2001), this privilege given to the respondents to record their own answers may also have negative effects such as the abandonment of the questionnaire prior to completion, the so-called drop-outs.

However, the advantages facilitate both the researcher and the respondent. Without binding time limits, the respondents are able to answer the questionnaire whenever they can or want to and there is even the possibility to stop and continue exactly where they have left off, as the answers are saved automatically. Moreover, web surveys can be more attractive to respondents through the use of multimedia in the questionnaire, but only if they do not affect their answers (Couper, Conrad & Tourangeau, 2007) or they do not increase the time required to complete the questionnaire which could lead to more item non-responses, as it seems to happen by using visual analogue scale, according to Couper, Tourangeau, Conrad & Singer (2006).

As far as the drawbacks are concerned, the main problem that web surveys have to overcome is the representativeness of the sample. In order for a sample to be representative, the characteristics of the sample should be similar to those of the survey population. Ensuring the representativeness of the sample is necessary in order to ensure the validity of the conclusions and therefore to maximize the possibility to draw general conclusion regarding the survey population. Usually, the representativeness is ensured through proper sampling procedure. In the case of web surveys the representativeness of the sample is directly related to the percentage of the respondents who have access to the internet. Therefore, researches based on web tools have to confront coverage issues, as often many units of the population cannot participate in the sample or many of the participants can be excluded from the survey especially, when it is census survey instead of random sampling. Such issues are usually overcome by using weighting and matching techniques (Schonlau et al., 2009).

Nevertheless, this problem does not arise in surveys related to parliamentary candidates, as the latter are people publicly exposed and they use the Internet in their daily lives in order to communicate and interact with the public and their voters. More and more candidates base their campaigns on web tools and use them to develop an interactive relationship with citizens. Moreover, e-mail addresses are necessary for candidates in order to communicate with their colleagues and their party, and vice versa; especially in times that need immediate and rapid coordination, such as during the electoral campaign.

**Response Rate**

The response rate refers to the percentage of people who answered the survey and results from dividing the number of people who completed the survey by the whole sample. It is essential to obtain a high response rate as the later ensures the reliability of the survey results. Generally, there is not a particular desired response rate, as this varies among surveys according to the method that is preferred. In any case, it should follow one of the six commonly accepted definitions of AAPOR (American Association for Public Opinion Research), which differ depending on whether or not the research has been completed, on the percentage of questions answered and on the way researchers deal with the unknown non-respondents[1]. The response rate of web surveys is comparable to other data collection methods, which means that web surveys can be used as a reliable alternative to the more traditional data collection methods, especially when the email addresses of the people participating in the survey are known. However, undoubtedly, there is space for improvement and this is one of the main objectives of this paper. The experience of the previous candidate MPs surveys has shown that there are often problems in the collection and the validity of the email address of the candidates (Andreadis & Chadjipadelis, 2008). Many candidates have undiscoverable email addresses; while many of those who have email accounts during the electoral campaign, they cancel them after the elections.

Another common problem is that it is not possible to distinguish between those who were invited to participate in the survey and refused to participate and those who were not informed about the survey, either because they do not check their own email account or because some e-mail filter blocked the delivery of the electronic message or for some other reason. Finally, problems are observed regarding the completion of the questionnaire. In particular, there are many participants who follow the link with the unique token and start answering the questions, but then they leave without completing the questionnaire (drop-outs). These kinds of problems are examined in this paper in order to expand the response rate in the candidate MPs survey of 2015.

**Candidate Survey**

The empirical data which allow us to proceed in this analysis come from the Comparative Candidate Survey (CCS). Regarding Comparative Candidate Survey (CCS), this is a product of an international coordinated effort to collect data about the candidates, who participate at each country's national elections. The survey is conducted via a questionnaire that is sent to the MP candidates. National study directors of CCS project have developed a common core questionnaire which is used in the aftermath of the national elections. The questionnaire includes a variety of questions that cover a broad spectrum of politics. Matters like relationships between the candidate, the party and the voters, campaigning, recruitment and carrier patterns, issues and ideology, and democracy and representation are located on the core of the questionnaire[2].

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[1] See The American Association for Public Opinion Research. 2011.Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys.7th edition. AAPOR
[2] From the official site of CCS: http://www.comparativecandidates.org/node/1

CCS tries through a sample research of parliamentary candidates' opinions and characteristics for the election period, to illustrate similarities and differences compared on demographic and social characteristics of the candidates and on the quality and the way of conducting their campaign. Moreover, the project aims to add more empirical data to political issues like the decline of the parties, the ideological depolarisation, the political representation, the background and the career of the candidate MPs. And, secondly, it aims to identify the political-structural correlates of individual attitudes and behaviors of party elites in order to add 'political' explanations to the ubiquitous 'sociological' explanation of variations over time and across countries[3].

In Greece CCS surveys have been conducted since 2007 by the laboratory of Applied Political Research of the school of Political Science of Aristotle University of Thessaloniki (A.U.TH). They are post-election surveys and they are conducted primarily online, via epolls.gr (Andreadis, I., Chadjipadelis, T. & Teperoglou, E., 2013; Andreadis, I., Chadjipadelis, T. & Teperoglou, E., 2014a; Andreadis, I., Chadjipadelis, T. & Teperoglou, E., 2014b). The questionnaire which is used in all cases is the Greek version of the common core international questionnaire[4]. For the survey of 2015 the questionnaire which is used is the new updated version of the common core international questionnaire[5].

A candidate study is one of the most suitable studies to be conducted as a web survey. Comparing to public opinion surveys, running a candidate survey as a web survey is much easier in Greece. More specifically, Internet penetration in Greece was considerably delayed and even nowadays, particular subgroups of the Greek population do not have Internet access. For instance, internet access in Greece differs significantly depending on sex, age, place of residence and educational level (Andreadis 2013b). Even when Internet is accessible, there are other factors that may generate additional difficulties for some respondents. For instance, lower education Internet users may not be able to use a self-administered questionnaire. For some groups of people a personal interview may be more appropriate. Finally, even if we overcome the aforementioned problems, it is very difficult to find the email addresses of voters. On the other hand, Greek candidate MPs are public figures who have accessible emails, which they use in their daily life for communication and in special occasions, such their electoral campaign. Of course, the group of candidates is not the only group of people with known email addresses. However, this specific group is more suitable than other groups with known email addresses, to examine the response rate of web surveys. Given that the subject of the (political) survey corresponds to candidates' interests, we expect that they are not going to drop-out due to lack of interest. We expect most of the drop-outs to occur as the result of burden.

## Data and Methodology

The main purpose of this paper is to explore ways to increase the responsiveness and representativeness of the sample and in towards direction an experiment is implemented in order to investigate techniques and methods that could reduce the number of questionnaires that are abandoned before completion (drop-outs). According to Hoerger

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[3] From the official site of CCS: http://www.comparativecandidates.org/node/2
[4] Comparative Candidate Survey (CCS) Module Common Core Questionnaire (2007-2012)

[5] Comparative Candidate Survey (CCS) Module II, Core Questionnaire (2013-2018)

(2010) approximately 10% of students participating in Internet-mediated university studies drop out almost immediately. After the first items, it takes about 100 items of survey content for a 2% additional drop out increase. Andreadis (2013a) analyses the relationship between the time spent on the survey and dropout, i.e. the outcome of the respondent's decision to abandon the web-survey. Using Wageindicator data he finds that surveys suffer by many dropouts during the first pages of the questionnaire. As a result, these drop-outs leave the majority of the questions without answer and the corresponding records can be discarded entirely. The dropout rates are low for the following pages and they can increase again when the respondents face a difficult question (such as asking them about their wages) or when their interest to the survey gets lower (Galesic, 2006). In these cases, respondent characteristics may be an important factor. For instance, Peytchev (2009) has found education to be significantly related to drop-outs (or break-offs) i.e. respondents with at least some graduate education are less likely to drop out.

Overall response time can be an indicator of burden to the respondent, i.e. respondents who need more time to arrive to a page have probably faced more difficulties in answering the previous questions and the probability of them getting tired can be larger. In addition, Yan and Tourangeau (2008) and Andreadis (2012) have found evidence that respondents tend to answer more quickly as they get closer to the end of the questionnaire. This could be a sign that respondents get tired or bored near the end of a long survey and they dedicate less time (pay less attention) to the last questions.

As it was mentioned before, in our study the survey participants are the candidates of the major Greek parties according to the outcome of the 2015 general election. In order to study the effect of the length of the questionnaire, the candidates are divided into two groups by random sampling. In the first group invitations are sent via email to participate in the survey, which includes the entire questionnaire of 85 pages (most of the pages include only one question) in order to send reminders later- this is the procedure followed in the previous studies. Regarding the second group, also invitations are sent via email to participate in the survey; however, this time it includes only a part of the questionnaire (20 pages). This is done to enable the candidates to complete the questionnaire before they lose their interest or become distracted by another activity. The rest of the questions are sent later in subsequent successive phase as separate questionnaire.

This process intends to compare and investigate the response rate between the two groups of candidates, with ultimate goal to collect as many responses as possible and reduce the drop-outs. What is achieved in the second case is a clearly smaller questionnaire and the time required for completion is significantly reduced (approximately five minutes-which is emphasized in the invitation to participate in the survey- instead of 35 minutes needed to complete the entire questionnaire). Hence, we have the opportunity to examine the importance of the duration of the survey and whether the size of the questionnaire is an inhibiting or a stimulating factor to complete it, or even to participate in the survey.

More specifically, the first invitations to participate in the surveys were sent on 16th of February 2015 to the candidate MPs of the first group and on 18th of February 2015 to the candidate MPs of the second group. A few days later, on 27th of February 2015 the first reminder was sent to the candidate MPs of both groups. A second reminder

was sent on 19th of April 2015 and the last reminders were sent between 20th and 27th of May. However, it is worth mentioning that throughout this period, we continued to collect MPs' emails and more invitations were sent gradually during March, as more candidates were added to the survey. Members in the leadership of the political parties contributed to this process providing us with the email addresses of the candidate MPs of their party.

## Empirical Analysis

Response behaviors to web survey invitations can be classified into different types (Bosnjak & Tuten, 2001). Table 1 displays the number of the invitations, the number of non-interviews, the number of completed questionnaires, the number of refusals and the number of drop-outs for both the short and the long survey. A total of 1359 invitations were sent from which 683 invitation were sent to the candidate MPs of the first group and 676 invitations were sent to the candidate MPs of the second group. However, the majority of the candidates did not answer to the questionnaire neither of the long (55.3%) nor of the short survey 50.7%). We do not know the reasons of no response. Some candidates may have stopped checking their emails. It is rather difficult to know the exact reason, and we refer to these cases as "non interview" with unknown eligibility (AAPOR, 2015). Completed were 30.7% of the questionnaires of the long survey and 38.1% of the questionnaires of the short-survey.

As refusals we describe the candidate MPs who have clicked on the link in their survey invitation without proceeding on answering the questionnaire. The reasons are unknown or they cannot be specified; possible reasons could be a technical problem, the device used (such as smartphones), or lack of interest. Approximately, 7.5% of the candidate MPs who were invited to participate in the long survey and 8.6% in the short survey belong to this category. At this point, it is worth mentioning that this category also includes the candidate MPs who although proceeded with the questionnaire, they have not answered any of the questions. Therefore, if we were not able to access paradata information (such as which is the last page each candidate has seen), at the end of the survey we would have an empty questionnaire. Finally, the drop-outs or in other words the partially completed questionnaires that the candidate MPs abandoned before completing them, constitute 6.4% and 2.5% of the invitations of the long and of the short surveys, respectively.

The Candidate MPs' survey is still in progress; the data presented in this paper are data gathered until the 23rd of June. The data collection is expected to be completed by the end of July. The first findings show that the duration of the survey can be a factor that influences the completion of the questionnaire, since the difference between the first and the second group is 48 responses. Furthermore, useful findings are noticed if we observe the first 20 pages of the long survey, which correspond to the all the pages of the short survey. The short survey has 258 completed questionnaires (38.1%), while in the long survey 241 candidate MPs (35.3%) answered the 20 first pages of the questionnaire. Hence, we can draw the conclusion that a higher rate of the candidate MPs who knew that the survey was short, completed the 20 pages of the short questionnaire. On the other hand, the candidate MPs who did not know the duration of the survey, completed the first 20 pages of the long questionnaire at a lower rate.

**Table 1**. Invitations, non-interviews, completed questionnaires, and drop-outs per survey

| | Long survey (1st Group) | | Short survey (2nd Group) | |
|---|---|---|---|---|
| | N | % | N | % |
| Unknown eligibility "Non interview" | 378 | 55.3% | 343 | 50.7% |
| Completed questionnaires | 210 | 30.7% | 258 | 38.1% |
| Drop-outs | 44 | 6.4% | 17 | 2.5% |
| Refusals[6] | 51 | 7.5% | 58 | 8.6% |
| Invitations | 683 | 100% | 676 | 100% |

As far as the drop-outs are concerned, there is a remarkable difference between the two groups of the sample. In the first group 44 drop-outs are observed while in the second group only 17. Evidently, a slight increase in the completed questionnaires in the short survey is noticed (7.4%) which in combination with the decrease in the drop-outs (3.9%), exhibit a slight increase in the response rate of the short survey. In other words, we can assume that the low percentage of the drop-outs that is noticed in the short survey justifies partially why in the short survey we have more completed questionnaires than in the long survey.

According to the figures presented in Table 1, there is a significant difference of completed questionnaires between the two groups: Pearson's Chi Square= 8.282 (p=0.004). The odds ratio is 1.39 i.e. the probability of completing the questionnaire of the short survey is 1.39 times the probability of completing the questionnaire of the long survey. In addition, the almost threefold number of drop-outs of the long survey shows that the size of the questionnaire favors the abandonment of the latter. This conclusion is reinforced if we examine the last question answered or seen before abandonment. In general, we believe that drop-outs observed in the beginning of the questionnaire caused mostly by candidates who are not that ready to start answering the questionnaire. On the other hand, drop-outs observed in the middle of questionnaire are mainly due to fatigue or burden. Moreover, if many drop-outs are observed in one specific question and this question is the last seen or answered question by many candidate MPs, then this question can be considered as difficult and it could provoke a drop-out.

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[6] According to AAPOR (American Association for Public Opinion Research), refusals belong to a larger category called "eligible, non-interview". Furthermore, there are several different types of refusals. In this paper, refusals correspond to "implicit refusals" with code 2.112 of AAPOR classification. (AAPOR, 2015)

More specifically, in the long survey, 22.7% of the drop-outs are noticed in the first five questions; while later in the questionnaire there are several questions which are the last seen questions of the questionnaire. For instance, question no 33 can be characterized as difficult to answer, since it is the last question of almost 16% of the candidate MPs who abandoned the questionnaire. Question 33 (or question D4 of the common core questionnaire) refers to how a Member of Parliament should vote in parliament and it consists of three sub-questions which examine how a Member of Parliament should vote under certain circumstances and if he/she has to vote according to his/her own opinion, his/her voters' opinion or his/her party's opinion. The fact that all the three sub-questions are asked in the same way changing only the last few words could have confused or tired the candidates and that is why many of them abandoned the questionnaire in this question. For instance, someone that did not pay enough attention in the previous question could have thought that there was a technical problem due to which the question text could not change.

The same is noticed also in question 24 (or question C3 of the common core questionnaire), which also consists of 3 sub-questions and asks the candidates to place their own views, their party and their party's voters on a scale from 0 to 10, where 0 means the most left and 10 means the most right. This is the last question seen or answered by 6.8% of the candidates who dropped out. Moreover, considerable frequency of drop-outs is noticed in question 42 (6.8%) and 43 (4.5%) which correspond to B4a and B4b questions of the common core questionnaire and refer to the electoral campaign of the candidates and more specifically they ask them to choose from a list which activities were part of their campaign and how important they were. The reasons why there are many drop-outs in this question remain to be seen.

On the other hand, in the short survey all the drop-outs (100%) are noticed in the first five pages, which means that nobody has abandoned the survey in the middle of the short questionnaire. Given that abandoning the questionnaire in the beginning is not related to the duration of the survey or the type of the question, the fact that there are not any drop-outs in the middle of the survey and only in the beginning of the short survey shows that the reduced duration of the survey encouraged the candidates to complete the questionnaire. Conversely, in the long survey many candidates either got distracted or they lost their interest probably due to the length of the questionnaire, since most of the drop-outs are observed in the middle of the questionnaire.

## Conclusions

In summary, this paper has examined the behavior of candidate MPs completing a web questionnaire. Taking into account the candidates MPs' surveys of the previous years, the main objective of this paper is to contribute to the conduct of a better organized survey, which aims to increase the response rate, collect as many responses as possible and reduce the drop-outs. By increasing the number of fully completed questionnaires we want to establish web surveys as the only method to conduct candidate surveys in the future.

Today the state of the art is to use a web survey as one of the modes of a mixed-mode approach (De Leeuw, 2005; 2013) because this approach enables the researcher to combine the best of various modes (e.g. the low cost and fast

responses of web surveys) while compensating for their weaknesses (e.g. the coverage issues of web surveys). The same questionnaire is used in both modes; the main reason of using more than one mode is to deal with the lack of Internet access or less familiarity with Internet for specific sub-groups of the target population. For exactly this reason, the candidate study has been conducted as a mixed mode in Greece since the first implementation in 2007. Our long-term intention is to be able to conduct the Candidate survey based entirely on the web. Relying on the experience of the previous candidate surveys and taking into account the deeper penetration and establishment of the Internet in Greece, we anticipate that coverage of the population will not be a problem for future web surveys. But, in order to replace other traditional methods and the mix-mode method which was used in the previous candidate surveys, in addition to overcoming the coverage issue, we need to reduce the number of web survey drop-outs.

Our paper has demonstrated that splitting a long survey in smaller pieces and sending separate invitations for each part may be a method that can be useful towards this direction. There is evidence that a higher response rate is achieved in the short survey which confirms the assumption that the length or the duration of a survey is connected with the response rate of the respondents. More specifically, the low percentage of the drop-outs that is noticed in the short survey justifies partially why in the short survey we have more completed questionnaires than in the long survey, which apparently is related to length or the duration of the questionnaire. Moreover, the fact that the candidate MPs who were informed about the short length of the questionnaire were more encouraged to complete the latter than the candidates of the first group who did not know the duration of the questionnaire and they abandoned it earlier. Hence, through this experiment we draw the following two significant implications for web survey designers and practitioners: i) if some questions are more important than others, we should put these questions at the beginning of a web survey in order to have them answered by most of the respondents and ii) we can increase the number of responses if we split the questionnaire into two parts and use the important questions as a separate short questionnaire. In other words, when we are more interested in a smaller sub-group of questions within the entire questionnaire of a survey, it can be more useful or effective to split the long survey in smaller parts, placing the sub-group that we are more interested in, in the first part of the survey, since there are more chances to have all the questions of this part completed. The first implication was already known and previous Greek candidate studies were adopted accordingly. The second implication is new and it is a significant finding of our experiment.

However, since the survey has not been completed yet, no final conclusion can be drawn on the overall impact of splitting the survey in two parts. To elaborate, there is no evidence yet about the second part of the short survey, which is still in progress. Hence, questions such as what is the percentage of the candidate MPs who completed the short survey that is going to answer the second part of the questionnaire, remain to be answered. After all, efforts will be made in the future in order to ameliorate the candidate MPs survey by achieving an increase in the response rate of the sample, anticipating that the methods applied will provide guidance for future similar surveys both concerning the candidate MPs such as the survey of the CCS, and other surveys mainly addressed to a specific population.

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