Conducting a Candidate Study as a Web-Survey
Advantages, Challenges and Best Practices[1]

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Abstract

Candidate studies are usually part of the National Election Studies (NES) which are conducted after the national elections of a country and examine the stances, the opinions and the attitudes of the political personnel. The main task of this paper is to provide researchers with guidelines on conducting a candidate study as a web survey. We argue that web surveys can be a reliable and reasonable mode to conduct a candidate survey. Candidates are a specific population that can serve as an ideal population to be surveyed using web-based tools. Relying on the experience of the Greek Candidate survey of 2015 this paper presents extensively all the fundamental stages of survey design and implementation that a web-based candidate survey should take into account. Special attention is given both to the advantages and the challenges than can occur and we suggest effective solutions for problems that a national research team may face. We emphasize the importance of a good survey design which can restrict the survey errors and increase the response rate. Coverage errors, low response rate and drop-outs are some of the most frequent problems that are observed generally in web surveys. We show that candidate surveys include smaller coverage problems than a general population survey. On the other hand, nonresponse is an important problem that researchers should deal with. For this reason, we focus on the recruiting and contact strategy and we examine the impact of the invitation and the follow-up reminders on the response rate. The information provided by this paper could be useful for research teams with limited experience on candidate studies conducted online.

Keywords: candidate study, web surveys, web survey design, nonresponse

Introduction

Candidate Studies are part of the National Election Studies (NES). They are post electoral studies conducted after the national elections of a country. They examine the stances, the opinions and the attitudes of the prospective MPs of the major political parties towards political, social and economic issues and various aspects of governance and representation. All this information is crucial in order to understand better the behavior of the political elites and in combination with general population national election studies to acquire a more in depth knowledge about politics in each country, especially in terms of congruence and political representation.

The behavior, the stances and the attitudes of the political elites towards different aspects of social and political sphere is an interesting topic among scholars. The "Elites and Political Leadership" standing group of ECPR can confirm this, for instance[2]. Many countries conduct their own candidate studies. For example, in UK,

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[2] For more information about the ECPR standing group "Elites and Political Leadership" visit: https://ecpr.eu/StandingGroups/StandingGroupHome.aspx?ID=54

the behavior of the political elites is analyzed across time via Parliamentary Candidates in UK (PCUK) project[3]. In addition there are some coordinated efforts of countries for comparative studies of the political elites through international projects. A coordinated effort is the "Observatorio de Elites Parlamentarias de América Latina" (Elites)[4], which examines the political elites of the Latin American countries or the IntUne Mass Survey for the political elites of the European Union member states, contacted in 2009[5].

A systematic study of political elites is possible thanks to candidate surveys. A great example is the Comparative Candidates Survey (CCS), which is a project of an international coordinated effort to accumulate data from the candidates, who participate at each country's national elections, which participates at the survey[6]. The survey is conducted via a questionnaire that is handed to the MP candidates. 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 potential 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[7]

In this paper we focus on using surveys to conduct a candidate study. The design of a survey is the most important process which determines the quality of the data, and consequently the quality of the findings produced by the analysis of the dataset. During this process, all the significant decisions regarding the various aspects of the survey should be taken: initial research ideas and problems, possible restrictions, the research methods used, the definition of the target population or the selection of key questions. Then relying on these first decisions, we proceed to the main designing stage which concerns the elaboration of the mode selected, the questionnaire design, the sampling and some technical preparations.

When we design a survey the goal is to optimize the data collection procedures and reduce the Total survey Error (TSE) within the available time and budget. This is an independent process and it can apply to any survey method. Possible survey errors can occur mainly due to bad or limited survey design and concern all the steps of the survey design and preparations. Choosing a mode which is irrelevant to the population that we want to examine could automatically exclude parts of it from the survey (coverage error). Bad sampling design can affect representativeness of the

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[3] http://parliamentarycandidates.org

[4] For more information about the "Observatorio de Elites Parlamentarias de América Latina" (Elites) visit: http://americo.usal.es/oir/elites/

[5] The mass survey was conducted in 2009 in 16 European Union Member States; Austria, Belgium, Bulgaria, Denmark, Estonia, France, Germany, Greece, Hungary, Italy, Poland, Portugal, Slovakia Republic, Slovenia, Spain, and the United Kingdom, as well as 1 non-European Union Member State, Serbia. For more information about the IntUne mass survey visit: http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/34272

[6] For more information about the Comparative Candidates Survey (CCS) visit: http://www.comparativecandidates.org

[7] From the official site of CCS: http://www.comparativecandidates.org/node/2

sample to the population, excluding groups of the target population or over-representing others (sampling error). A bad questionnaire design where questions are vague or bad formulated may lead to bad or wrong responses (measurement error). Finally, a crucial issue that concerns all the researchers is the response rate and how to increase it. Even a great sampling design with no coverage issues does not guarantee that all the people contacted will respond to the survey questionnaire (nonresponse error). Usually, the main process that can increase the response rate of a survey are the reminders after the initial invitation.

There are many methods (modes) that can be used in survey. Regarding the data collection, the two methods which were initially used in social surveys are the face-to face interviews by an interviewer visiting a respondent and the mail surveys where a self-administered questionnaire is sent by mail to a respondent. In the second half of the twentieth century and especially in the 1990s telephone surveys were popular, where an interviewer contacts a respondent through the phone. Finally, during the last decades the increasing development of the new technologies and the Internet enable the computer-assisted survey methods and especially the web surveys. In web surveys the questionnaire is self-administered and an invitation to answer an online questionnaire is sent to a respondent by email. Therefore, the existing methods evolve and change or new methods emerge, as the society and the technology evolve.

The decision about the data collection method depends on two main factors: i) the main research question, which defines the population under study and the types of the questions that should be asked and ii) certain restrictions such as the survey ethics, the available time and funds. (Biemer & Lyberg, 2003). Sometimes the best affordable method is a mixed-mode design (De Leeuw, 2005) since it can combine the strong points of each individual mode and give the opportunity to compensate for the weaknesses of each individual mode at affordable cost. Nowadays, the development of new technologies in combination with the more and more increasing and massive use of Internet encourages the conduction of surveys based partially or entirely on the web.

This paper promotes the use of a web survey as the main tool to collect data for a candidate study. In the following sections we discuss possible advantages and disadvantages while conducting a candidate study as a web survey. Then we present best practices that can be followed during the design and implementation of such a project. Next, we use the 2015 Greek Candidate Survey as an example of the implementation of the presented best practices that can lead to high quality data and we conclude that the Greek case can serve as an example of the sustainability of the Candidate studies in the Balkan area even under conditions of limited funds.

Web surveys for candidate studies: challenges and disadvantages

The available web survey software permits the conduct of fast and mainly low-cost surveys. 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 errors because of carelessness during the copy of the recorded data can be avoided (Durrant & Dorius, 2007). 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.

Moreover, 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 some of the available software solutions even provide the possibility to stop and continue exactly where they have left off. 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 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 challenge that web surveys have to confront is coverage issues in order to ensure 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 general population web surveys the representativeness of the sample is directly related to the percentage of the respondents who have access to the internet. For instance, Greek population does not have the same access to the Internet and differs significantly depending on sex, age, place of residence and educational level (Andreadis 2013b). Therefore, general population studies 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).

However, web (CAWI) can be the best affordable method depending on the population of the survey and the quality of the sample frame, such as in surveys of "Specifically Named Persons", for instance. This is the definition given by AAPOR (2016) and it refers to list-based sampling frames of known e-mail addresses. A main condition, in this kind of sample or target population is all the named persons in order to be considered eligible to participate in the survey should have accessible and available email addresses. Another condition concerns the coverage, where all the members of the sampling frame should have internet access. Web could be the ideal mode for surveying specialized population, with limited coverage and sampling problems (Couper, 2000; Couper et al., 2007). Examples of this category of web or internet based surveys in general, could be a sample of currently registered college students drawn from the registrar's records (AAPOR, 2016:43) or an email list of clients or employees of a business company. The aforementioned specific populations can have complete Internet and email coverage by providing all students with an official university email address or by providing the employees a company with company's email addresses and by collecticting the email contacts of the clients of a business company (Callegaro, Lozar Manfreda & Vehovar 2015, p. 25).

An ideal example, which is the case study that this paper examines, could be the prospective MPs of a country. Candidate studies are usually contacted in the aftermath of an election in order to examine the behaviour, the stances and the attitudes of the political personnel of a country. In Candidate studies, the target population is the list of candidate MPs of the parliamentary parties in a country in question. The number of the candidates varies according to the country, the electoral system, even the specific election. Usually coverage issues do arise less frequently 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. In addition, many of their email addresses are easy to be found, either available online especially during the electoral campaign or can be provided by their parties only for scientific and academic purpose.

If only online research is used, a significant part of email addresses will be missing. For instance, if the election of the members of the Parliament is based on a party list, the candidates will not run personal campaigns. Even in countries where voters are able to choose their preferred candidates there may be political parties that do not encourage their candidates to run personal campaigns; Finally, some candidates with low expectation of getting elected do not invest on personal websites, or social media accounts. Even when a list of email addresses is provided by a political party, the email addresses of some candidates can be missing or wrong.

In addition to missing email addresses, we may face the obstacle of email addresses either invalid or of unknown validity. Sometimes the collected email address in not the one that they normally use but it is an email address created for political communication only. Many candidates buy domain names for campaign purposes and create email addresses on these domain names. Sometimes they cancel their web hosting subscription after the election, especially if they are not elected. These cases are easily identified because when a message is sent to these email addresses, it returns as undeliverable with the additional information that the domain name is not valid.

Focusing only on the valid email addresses we have to deal with non-response. One of the most frequent reasons for non-response is the lack of time. There is evidence in the literature that people who do not have enough available time in their daily life have more chances to refuse to participate in a survey. For instance, Cranford et al (2008) examine which are the main reasons for nonresponse, as they were observed from a follow-up telephone survey of college students who did not respond to a web survey. The results show that almost one out of two students (45.7%) did not respond because they were "too busy", while other common reasons were the fact that they were "not interested" and that they "forgot to complete survey" (18.1% each). "'I was too busy" is also pointed out by Key, Layton, & Shakir, (2002) as the most common reason for nonresponse with 31.2%. However, in a candidate survey this is expected to be more the case when the respondent is an elected candidate and apparently he/she

has more responsibilities and less available time. Finally, according to Gideon (2012) people who declare that they do not have available time to answer the questionnaire, are more likely to respond in a potential follow-up contact or reminder, compared to those who declare that they are not interested in the survey, which was another common reason for nonresponse (Cranford et al., 2008), as mentioned above.

The interest for the topic or topic salience can influence considerably the participation of a respondent to the survey (Martin, 1994). Groves, Presser, & Dipko, (2004) examining the reaction of respondents to the topic of the survey request, found that people who were interested in the topic of a survey as it was described in the survey introduction during the very first contact, were more likely to participate to the survey. Moreover, respondents who are interested in the survey topic usually give answers of higher quality (Holland & Christian, 2009) and they abandon the questionnaire (drop-out) less frequently (Galesic, 2006). Consequently, a target population that consists of candidate MPs are expected to be highly motivated to participate in political survey because politics is expected to be one of their main interests.

However, it should be emphasized that as reported by Crawford Couper & Lamias (2001), the 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. The absence of an interviewer, burden from long questionnaires, possible distractions (e.g. a new incoming urgent email), questionnaire design non-optimized for all devices (Andreadis, 2015a, 2015b) are factors that increase the possibility of abandoning the questionnaire before its completion.

Using web surveys for candidates: the state of the art

The design of the survey begins with definition of the target population and the selection of the sampling method. Census is usually avoided when the target population is big, since it can be an extremely expensive and time consuming process and usually is impossible to reach everyone in the target population. However, the target population of candidate studies is very specific and most of the times it is not large. Therefore, instead of sampling, it is possible to conduct a census which means selecting everyone in the target population. For instance, in Greece the total number of candidates per party is 412 which is not prohibitive for a census, which was preferred instead of a sampling process.

The questionnaire design is a fundamental factor that can minimize measurement and nonresponse errors. In general, using a common core questionnaire has many benefits, since it permits a comparative analysis across time and countries. Most countries use the common core international questionnaire of the Comparative Candidate Survey (CCS)[8]. 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

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

and representation are located on the core of the questionnaire[9]. Each national team is able to include additional items in the core questionnaire. A good practice is to include items that can provide opportunities to compare candidates with voters.

The CCS common core questionnaire is created to be used as a self-administered printed questionnaire. As with other similar cross-national or cross-cultural surveys, if a national team plans to use a different mode, they should adopt the questionnaire accordingly. Therefore, since we have designed the survey to conduct it online, the computerization was a significant process. The basic idea is in order to develop a successful questionnaire, "one needs to get into a respondent state of mind." (Dillman et al., 2014:94). Usually, a particular format or question design can either motivate or discourage people to answer a particular question. (Dillman et al., 2014: 94-126). Simple question formats were used (yes/no, 5 points scales or ten points scales with radio buttons and some open-ended questions). A web questionnaire has many features and potentials (such as special question formats like visual analogue scales, multimedia and images, answer validation, progress indicator). However, the questionnaire design can affect considerably the survey nonresponse; hence, usually a simple questionnaire design eliminates the drop-outs. For this reason, we avoided using any colours, bold letters or images in order to reduce measurement errors.

The length of the questionnaire is an important element which influences the response rate of the survey, with a lower percentage of drop-outs and more completed questionnaires in a short questionnaire (20 questions) comparing to a more extended version of it (85 questions). Therefore, we can conclude that when we are more interested in a smaller sub-group of question 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 of questions 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. (Kartsounidou & Andreadis, 2015). The effect of the length of the questionnaire on participation rates is also studied by Galesic and Bosnjak (2009) who observed that the shorter the survey questionnaire the more respondents will start it and complete it in the end.

Furthermore, there is evidence that the biggest amount of the respondents who abandoned the questionnaire is noticed in the beginning of the survey. According to Hoerger (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).

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[9] From the official site of CCS: http://www.comparativecandidates.org/node/1

Given that most of the drop-outs are usually observed in the beginning of the questionnaire it would be more effective to put a simple question on the first page of the questionnaire in order to encourage respondents to continue responding. The first question can determine the impression of the respondent regarding the whole questionnaire, labeling it as easy or difficult to complete. Hence, a short, simple interesting and specific question can increase the commitment to the survey and reduce mistrust and uncertainty (Dillman, Tortora & Bowker, 1998).

Sometimes it is more preferable to put the most important questions in the beginning of the questionnaire. This approach is also related to the length of the questionnaire. In general, we believe that drop-outs observed in the beginning of the questionnaire caused mostly by respondents 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 boredom. Hence, in very long questionnaires where more drop-outs are expected (even after the first pages) reordering the questions in order to put the most important at the beginning maybe will be useful.

An important dilemma in web questionnaire design concerns the presentation of questions: all questions in one page (scrolling) or one question per page (paging)? Scrolling is more recommended for shorter and simple questionnaires while a paging design is more suitable for longer and complex questionnaires, as it allows a clearer presentation of the questions. Mavletova and Couper (2014) argue that vertical scrolling leads to faster completion times and fewer technical problems. On the contrary, Wells, Bailey, and Link (2014) argue in favor of minimal vertical scrolling and support the idea of using one question per page. While trying to follow the best approach on scrolling, we should keep in mind that many respondents may try to participate in a web survey with their mobile devices. According to Andreadis (2015) if a web survey is optimized for smartphones (e.g. only one question per page) then both computer and smartphone users will give responses of almost the same quality. For the Greek candidate study we have tried to avoid vertical scrolling. An additional benefit of a paging design is that in case of a drop-out the previous answers can be saved while in a scrolling design usually there is loss of data. Finally, many times a combination of the two designs is preferred, grouping question of the same context in the same page, for instance.

After taking all the important decision for the survey the next stage of the survey process is the implementation of the survey. The two main activities that take place in this sage are the recruiting of the respondents and the measurement. The term recruiting refers to the contacting phase, where invitations are sent to all the units. Recruiting process in list-based web surveys is a process which takes place separately from sampling. There are different modes of contact (mail, email, phone) and a combination of modes is possible when all the contact information of the units is available for the researcher. However, the typical recruiting in list based web surveys relies on email invitations and that is the contact mode on where we focus at this paper. There are three types of invitation messages: the pre-notification, the main survey invitation and the reminders.

The pre-notification is sent before the main invitation to participate to the survey. In general, the pre-notification is optional; on the contrary, the main invitation is essential in order to participate in the survey. The main invitation can be sent either by mail or email depending on the available contact information from the sampling

frame. Nevertheless, in both cases the main element that should be included in the main invitation of a web survey is the URL address of the web questionnaire. In email invitations, which is the case that is highlighted in this paper, an automated login is preferred. A unique URL is prepared for each respondent, to which an ID code (token) is added in the end of the basic URL of the web questionnaire. The individualized URL link secures and guarantees that no third parson can have access to the questionnaire and that participants can answer to the questionnaire only once. Respondents can have access to the questionnaire just clicking on the individualized URL link. However, in the email invitation there should be explicit instructions and options for accessing the web questionnaire, in case the link is not working or in case the respondent is not very familiar with the internet usage (Dillman et al., 2009: 287).

In addition, the main invitation should contain elements required by professional or ethical standards and elements to establish trust and increase the response rate. More specifically it should provide information on how and why respondents were selected, how to find the survey on the web, additional contact info of the researcher and an option to opt-out. Another important element is to highlight the survey sponsor, who could be an authority, a researcher, a partner, a client or another organization or individual. Presenting the survey sponsor, especially when the latter is known or highly appreciated by the respondent can increase legitimacy and trust, provoking an impression that the survey is important and affecting the intention to participate (Fang, Shao & Lan, 2009; Fang & Wen, 2012) and increasing the response rate (Boulianne, Klofstad & Basson, 2011; Porter and Whitcomb, 2003).

Other characteristics of the invitation that can increase the response rate are the length of the invitation text, where a long invitation text can increase the response rate and the position of the URL address at the bottom of the invitation (Kaplowitz et al., 2011). Keusch (2012) argues that apart from the pre-notification message also a female sender for contacting a mainly male sample can maximize the response rate. Petrovčič, Petrič, & Manfreda, (2016) observe that at least one of the following elements: elements of authority, plea for help, and sense of community in email invitations, can contribute to a higher response rate than not using any element.

Moreover, there is a considerable debate among scholars regarding the personalization of the invitations. On the one hand, it can establish trust and a better connection between researcher and respondent (Dillman et al., 2009: 272). In addition, personalization can also influence the response rate of a web survey (Edwards et al., 2009; Cook et al. 2000); although, other studies observed that personalization had no significant effect on the response rate (Porter & Whitcomb, 2003; Mueller et al., 2014). Apart from the increase in the response rate, personalizing invitations can also motivate respondents to finish the questionnaire (Sánchez-Fernández et al., 2012). On the other hand, personalization may also have a negative impact in terms of anonymity. Personalized should be avoided especially in surveys with sensitive questions, where phenomena of social desirability are more likely to be observed or item nonresponse ("I prefer not to answer") (Joinson et al., 2007).

The response rate of all self-administered surveys can be increased by using follow up reminders a few days after the initial invitations was sent. The purpose of using reminders is to motivate participants who have not submitted a completed questionnaire. According to Asch, Jedrziewski, & Christakis (1997) mail surveys

where reminders were used scored 13% higher response rate comparing to surveys where reminders were not used. Dillman et al (2009) argues that the more contacts can result to higher response rates also to web surveys. Kittleson (1997) emphasized the effectiveness of the follow-up reminders arguing that they can double the response rate for e-mail surveys and according to Fan & Yan (2010) response rate can increase accordingly to the number of reminders. On the other hand, Shih and Fan (2008) observed that sending a large number of reminders is less effective in web than in mail surveys.

As mentioned above, there is some evidence in the literature regarding the correct or effective use of reminders in web or Internet surveys; however, it is difficult to establish a desirable number of reminders. Crawford, Couper & Lamias (2001) observe that two reminders every two days is better than a single reminder after five days. On the other hand, Deutskens et al. (2004) argue that there is not a significant difference in response rate when reminders sent more or less frequent (21.2% higher response rate the early follow-up than 19.5% the late follow-up). Moreover, mentioning the deadline of a survey can increase the response rate (Porter & Whitcomb, 2003). Other scholars (Muñoz-Leiva et al., 2010; Sánchez-Fernández Muñoz-Leiva & Montoro-Ríos, 2012) conclude that more than three or four messages (including the initial invitation) are not effective.

On the contrary, too many reminders can have opposite results; they may be understood as spam and they may irritate or annoy the respondents. Furthermore, increasing the number of reminders can provoke survey fatigue especially to already over-surveying populations, such as the higher education students (Van Mol, 2016) Therefore, although there is evidence that more reminders can increase the response rate, it is difficult to establish an optimal number for the reminders or the time interval between the contacts and examine the effect that they will have to the quality of the data collected.

Lemon (2007) examining the pattern of responses after the initial invitation or a follow-up reminder observes that the majority of responses are received within 36 hours and he concludes that people either will respond immediately or not at all. Hence, choosing the best ay and time to send the invitation/reminder could be important. Nevertheless, this is more useful in offline surveys, where it is important to know when is the most convenient date or time to contact the respondent via phone or in a phase-to phase interview for instance. In online surveys the respondent chooses him/herself when to answer the questionnaire and he/she is not obliged to response right after the invitation to participate arrives. However, a general rule could be that the best day and time to send an invitation is when the respondents are not too busy. Hence, the best day and time to send an invitation depends on the target population of a survey. In other words, there will be different results in an empirical analysis of a students' survey, a survey for professionals or for an online panel, for instance.

The measurement is the main data collection process which is related to the actual filling of the questionnaire. At this stage the only way for the researcher to interact with the respondents is indirectly through the design of the web questionnaire, which is fixed in content and format (Callegaro, Lozar Manfreda and Vehovar, 2015: 167). Therefore, a successful measurement process depends considerably on the quality of the questionnaire preparation and the recruiting. Since fundamental changes are not

possible to be done, the researcher before activating the survey should be sure that everything is working and no more changes are necessary. These can be confirmed by pre-testing both from a technical and a methodological perspective.

The main activities after data collection process is over concern data cleaning, data weighting, documentation and publication of the data. The data editing and cleaning is a crucial process in order to verify the quality of the data collected (Groves et al., 2009). During this process the researcher inspects and alters when it is necessary the data in order to remove non-useful cases: multiple responses by the same individual (especially in non list-based samples), lurkers submitting empty questionnaires and partially completed questionnaires as long as the responses to key questions are missing. Moreover, some post-survey validations are important in order to find potentially invalid data such as non-differentiation (aka straight-lining), non-substantive answers and responders with very short item response times. For instance, using web survey paradata we can flag as speeders, the respondents who spend on the items less time than the necessary to comprehend the question (Andreadis, 2012; 2014). Other post survey adjustments are the coding of open ended questions and imputations where it is possible for missing values. However, a candidate survey dataset does not suffer from similar problems, because the candidates do not display the aforementioned response patterns and they give high quality responses. The only cleaning action needed on a candidate survey dataset, is the removal of the incomplete questionnaires due to drop-outs.

Weighting technics intend to balance the differences in the structure of respondents due to nonresponse and coverage errors, in order for the sample to be representative of the target or general population. One method of weighting a candidate dataset intends to guarantee that each party is equally represented (that is to say the weighted sample includes the same number of candidates from each party in the study). This approach is the most appropriate, when each party has the same number of candidates. On the other hand, there are cases (e.g. when we want to compare candidates with voters), we can use weights that reflect the vote share of the parties in the study (Teperoglou et al 2014).

Of course, a dataset available only to the researchers who have produced it can have a limited impact. In addition, the main purpose of the CCS common core questionnaire is the ability to run comparative analyses including as many countries as possible. CCS offers the infrastructure and the human resources in order to collect, harmonize, produce a common dataset and disseminate it to the research community. In addition, with candidates the issues of any ethical or legal restrictions (such as anonymity of the respondent) are not as crucial as with voters. Although the combination of some variables can reveal the identity of the respondent (e.g. a combination of electoral district, party and year of birth) the fact that the candidate MPs are public figures who have already expressed their opinions and positions openly, minimizes the need for anonymity.

The Greek Candidate Study of 2015

The Greek Candidate Studies rely on the Comparative Candidate Survey (CCS) and they 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). In the surveys of 2007 and 2009 there are available data and results only for the candidate MPs of the two major Greek parties- PASOK and ND. In the survey of 2012 an effort was made to expand the population of the survey including candidates of all the parliamentary parties. For this reason, a mixed-mode design was introduced combining web with phase-to phase interviews. The 2015 the candidate survey was conducted entirely online.

The 2015 Greek candidate questionnaire consists of the CCS common core questionnaire and additional questions of national interest. Many of these questions were also included both in the Greek National Election Voter study and in the Voting Advice Application- HelpMeVote facilitating a more in-depth analysis of the Greek elections and enabling interested scholars to make comparisons between political elites and voters (Andreadis, Kartsounidou & Chatzimallis, 2015).

The initial target population of the 2015 Greek candidate survey was the group of all candidate MPs of the Greek Parliamentary parties after the legislative election of January 2015. These parties are the Coalition of Radical Left-SYRIZA, the New Democracy-ND, the Golden Dawn (GD), the Potami, the Communist Party of Greece (KKE), the Independent Greeks (ANEL) and the Panhellenic Socialist Movement-PASOK. The Communist Party of Greece (KKE) and Golden Dawn (GD) have always refused to provide a list of email addresses for their candidates. To make things worse, the candidates of these parties are usually selected directly by the party leadership. Most of them do not run personal campaigns, they do not have personal websites and it is arguably impossible to find their personal contact details. The interested reader can easily verify that most of the elected MPs of KKE cannot be contacted directly via email. A simple visit to the website of the Greek Parliament: http://www.hellenicparliament.gr shows that almost all KKE MPs either do not have an email account or they have a common email account that belongs to the party: kke@parliament.gr. As a result, the Greek Candidate datasets could not include these parties.

Every political party in Greece is allowed 412 candidates in 56 electoral districts (constituencies). All major parties include in their electoral lists the maximum number of candidates they are allowed. Focusing on the five parliamentary parties (after the exclusion of KKE and GD) our target population in theory comprises 2060 candidates. The aggregate number of target population it is not prohibitive for a census, which was preferred instead of a sampling process.

All the units of the target population were split randomly in two different groups within an experiment which was implemented in order to study the effect of the questionnaire length and investigate techniques which could reduce the number of questionnaires that are abandoned before completion, the so-called drop-outs. Hence the respondents of the first group received the extended version of the online questionnaire with 85 pages (most of the pages include only one question) and 30-40 minutes approximately are needed to complete it. The respondents of the second group received a shorter version of the questionnaire or only a part of the

questionnaire which includes 20 pages and it requires around 5-7 minutes for someone to complete it. The rest of the questions are sent later in subsequent successive phase as separate questionnaire.

As for the recruitment process of the Greek Candidate survey of 2015, many email addresses of the participants were available online and they were collected by the researchers. For the ones that they were not available online another approach was preferred, to contact the parties of the candidates and not the candidates themselves. Hence, parties were asked to provide us with the email addresses of their candidates. Some parties provided us confidentially with a list of the email addresses of their candidates while others preferred to inform their candidates themselves and the ones who were interested to participate in our survey contacted us via email in order for their email addresses to be acquainted. The latter tactic can be more promising in terms of the response rate of the survey; however, there is a chance to lose potential eligible respondents.

In Table 1 (for the long survey) and Table 2 (for the short survey) we present the response rates per source of email addresses. In the long survey we had to exclude the respondents of the party who basically contacted us in order to participate in the survey after they were informed by their party. The response rate of this group of respondents was extremely high (92.9%); however, the fact that they already were positively predisposed regarding the survey differentiates them considerably from the other respondents. We decided to send to all the respondents of this group the long questionnaire since they were already motivated enough to participate to the survey.

From the 627 emails in the long survey, 235 were gathered searching on the Internet and 349 were provided by the political parties. Bounced and invalid emails are noticed in both sources: 6 from the online research and 33 from the email lists provided by the political parties. From the 545 valid emails, 229 were found online and 316 were provided by the parties. Finally, the response rate of the respondent whose email was found online is 33.6%, while the response rate of the respondents whose emails were provided by their political parties is 34.5% (Table1).

Table 1. Response rate by source of email addresses (long survey)

	Completed responses	Valid emails	Response rate
Research on the Internet	77	229	33.6%
Provided by party leaderships	109	316	34.5%
Total	186	545	34.1%

In the short survey, from the 616 emails, 235 were gathered searching on the Internet and, 381 were provided by the political parties. There are 43 bounced or invalid emails; 8 of them are from the online research and 35 from the email lists provided by the political parties. The valid emails are 573 and 227 were found online and 346 were provided by the parties. As for the response rates there is a more significant difference between the respondents of the two different sources: 46.7% for the

respondents of online research and 35.8% for the respondents whose emails were provided by the party.

Table 2. Response rate by source of email addresses (short survey)

	Completed responses	Valid emails	Response rate
Research on the Internet	106	227	46.7%
Provided by party leaderships	124	346	35.8%
Total	230	573	40.1%

The difference in response rates between the emails found online and given by the political parties is more random than a pattern worthy to be explained further. Moreover, there are more invalid or bounced emails in the lists provided by the parties, which means that the email lists of the parties are not always updated. On the other hand, the online research especially during the electoral campaign can provide us with more recent contact information. In this case the only problem that can occur if a candidate deactivates or stops using this email address after the elections, especially in case he/she is not elected. It is worth mentioning that with the contribution of the political parties the number of the eligible participants of the survey increased automatically and consequently the number of the respondents increased as well. Hence it is more effective to collect the email addresses using both sources which are complementary to each other.

Having in mind that the invitation is an important element which can motivate or discourage the respondents we emphasised the structure of the invitation. Following the guidelines described in the previous section we added most of the elements that can stablish trust and eligibility, motivating the respondents to participate to the survey. Apart from the URL link which was placed in the end of the invitation, the invitation included a general description of the project and instructions to activate the link. Moreover, the survey sponsor and authority which was the Aristotle University of Thessaloniki was emphasized both in the invitation text and on the subject of the email sent. The contact details of the principal investigator were mentioned, encouraging the respondents to contact him if they had any queries regarding the survey. Elements of personalization were used because the population under study consists of candidates who have already expressed their opinions to the public and anonymity is not an issue for them.

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 (long survey) and on 18th of February 2015 to the candidate MPs of the second group (short survey-Phase A). A few days later, on 27th of February 2015 the first reminder was sent to the candidate MPs of both groups. In the meanwhile, we continued to collect MPs' emails and we added the email lists provided by the parties so more invitations were sent gradually during March, as more candidates were added to the survey. A second reminder,

which was the first for some other respondents, was sent on 19th of April 2015 and the third reminders were sent between 20th and 27th of May for both groups. On 31st of April the phase A of the short survey was over and during April and May we sent to the respondents who completed the questionnaire of the Phase A invitations to participate to the Phase B and a first reminder (12-13 May). June was a very difficult month to conduct the survey within a turbulent economic and political situation, a potential Grexit at stake and a forthcoming referendum. Hence, we send only a second reminder on 9th-10th of June to the respondents of phase B. After the referendum which took place on 5th of July we sent a fourth reminder to respondents of the long survey and a third reminder to the respondents of the phase B on 8th of July. Finally, the last reminder was sent on 20th of July to both groups with a deadline to response until 31st of July. Therefore, the measurement process took place from mid-February to end of July 2015.

Although the initial invitations were very appealing to the respondents of the survey, as around half of the answers were given after the initial invitation, the response rate of the survey still needed to increase. The first reminder in all the groups of the survey was very effective providing an additional 20-30% of the completed questionnaires and adding 9 to 10% to the response rate of each survey group. As it shown in Table 3, the response rate in the long survey is 34.2%. On the other hand, the response rate in the short survey is 40.1% (Table 4). The difference in the response rates of the survey groups depends more on the length of the questionnaire and not to the number of the reminders sent. After the second reminder the number of responses is very small. For instance the third reminder gave us less than 10 completed questionnaires in both surveys.

Table 3. Number of reminders before response (long survey)

	N	% of invited	% of completed
Initial invitation	83	15.2	44.4
First reminder	50	9.2	26.7
Second reminder	19	3.5	10.2
Third reminder	9	1.6	4.8
Fourth reminder	17	3.1	9.1
Fifth reminder	9	1.6	4.8
Completed questionnaires	187	34.2	100.0
Non-response	359	65.8	
Total invited	546	100.0	

Table 4. Number of reminders before response (short survey)

	N	% of invited	% of completed
Initial invitation	115	20.1	50.0
First reminder	75	13.1	32.6
Second reminder	32	5.6	13.9
Third reminder	8	1.4	3.5
Completed questionnaires	230	40.1	100.0
Non-response	343	59.9	
Total invited	573	100.0	

However, we have sent a final reminder, in which we have mentioned the deadline of the survey both on the title of the reminder and in the body of it. This seems to work positively because it gave us 23 new completed questionnaires in the long survey. For most of the respondents in the long survey this last reminder was the fourth, but for some of the respondents who have been included from the very beginning in the survey it was the fifth reminder. A similar increase of completed questionnaires is observed in the short survey (32 new completed questionnaires). For most of the respondents in the short survey this last reminder was the second, but for those who have been included from the very beginning in the survey it was the third.

Table 5 shows the number of completed questionnaires after each invitation/reminder in phase B of the short survey. The response rate is 49.6%, but if we want to estimate the total number of completed questionnaires in both phases of the short survey (creating a complete record of responses to all the questions), we should multiply this response rate with the response rate of phase A, e.g. 49.6%*40.1%=19,9%. Consequently, if only the responses to the questions included in phase A are crucial then, splitting the survey gives better results, but if responses to all questions are absolutely necessary, the long survey should be preferred.

Table 5. Number of reminders before response (short survey phase B)

	N	% of invited	% of completed
Initial invitation	58	25.2	50.9
First reminder	24	10.4	21.1
Second reminder	16	7.0	14.0
Third reminder	8	3.5	7.0
Fourth reminder	8	3.5	7.0
Completed questionnaires	114	49.6	100.0
Non-response	116	50.4	
Total invited	230	100.0	

As with the other surveys (short phase A and long), we have sent a last reminder mentioning a deadline to the participants of short phase B which has produced 18 new completed questionnaires. Again, the number of previous reminders (before the deadline reminder) was not the same for all participants because as participants were completing the first phase they were transferred to phase B almost immediately.

In order to create the final dataset, we have used the following procedure: First we have merged the two short surveys in order to reconstruct the complete set of responses given by a candidate to any of the two short surveys. Then we were able to merge the cases of the long survey with the cases of the merged dataset produced in the previous step. From this file we have kept the fully completed questionnaires and some partially completed questionnaires that had most of the key variables as non-missing.

Following the AAPOR standards we can estimate the response rate as 520/1384=37.6% if we exclude the unknown eligibility cases or as 520/1476=35.2%

if all cases are included.[10] Since the targeted population includes the same number of candidates from each of the five parties, in a representative sample each party should be represented by circa 20%. The distribution of completed questionnaires per party is presented in Table 6 and it shows that the distribution per party in the sample is similar to the distribution per party in the population.

Table 6. Number of candidates per party in the sample

Party	Frequency	Percent
SYRIZA	112	21.5
ND	102	19.6
RIVER	108	20.8
PASOK	96	18.5
ANEL	102	19.6
Total	520	100.0

According to Andreadis (2016) the distribution of the candidates in the sample with regard to the electoral districts is very similar to the corresponding distribution in the population. In addition, there is a high level of correspondence between sample and population as far as gender distribution is concerned. Finally, the elected MPs (as expected because they have a lot of obligation and less available time) are slightly under-represented in the sample, but the gap is not very large (the elected MPs in the sample and in the population represent 8.1% and 12.5% respectively).

Discussion

This paper provides a guideline on conducting a Candidate Study as a web survey. It presents challenges that the national research teams should expect to face and offers ways of dealing with them. Non-response errors are one of the main problems that a researcher could face. For this reason in this paper we emphasize the recruitment process and the contact strategy which includes the initial invitation and the follow up reminders, as fundamental stages that can increase the response rate of the survey.

Using as an example the Greek Candidate Survey of 2015 we observe that a first reminder after the initial invitation can increase considerably the response rate of the survey. More than two reminders are not very efficient which could irritate the respondents instead of motivating them. However, a useful tip is to mention the deadline of the survey in the last contact since it can boost the response rate in the end. Of course we observed that in a short survey it is easier to achieve higher response rate; on the other hand, a long survey can provide us with more information regarding the attitudes and the behavior of the candidates in question, with an adequate response rare to guarantee the representativeness of the sample and to permit the inference to the target population.

As for the recruitment phase we observe that collecting the emails online during the electoral campaign can provide us with more valid email addresses. On the other hand, using email lists given by parties could give us more email address and consequently more eligible participants to the survey but also more invalid email

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[10] Even if we include in the denominator the cases that were never contacted the "response rate" would be larger than 25%

addresses, which means that the email lists of the parties are not always updated. However, the proportion of invalid emails to the total emails collected is relatively low. Hence, we conclude that the best practice is to use a combination of both sources in order to collect as many email addresses as possible

At this point, it is worth mentioning that the establishment of an integrated candidate study with high credibility is difficult and usually it takes time. Especially the first time is the most difficult but gradually relying on the experience of the previous studies you can find strategies and approaches that can fit better to the peculiarities of each country. For instance, the Greek Candidate Study of 2015 which is presented in this paper is the fourth consecutive study conducted in Greece. Since 2007 when the first study conducted, the studies that followed have been improved gradually, reaching its peak in 2015, with the most mature, complete and successful Greek candidate study.

Using the web as the main mode to conduct a candidate survey can produce high quality data that can be used to produce reliable estimates for the population under study. The advantages of web surveys could guarantee the sustainability of the Balkan Electoral Studies in the future (especially the candidate studies) even with limited funds. The Greek case may serve as a useful example: some of the challenges that the Greek research team had to deal with, may be irrelevant for Western European research teams because in these countries there is a long tradition of similar studies and the participation of candidates in academic studies is common. In the Balkan countries at least some of the political parties are more hesitant to respond; hence, we anticipate the experience of the Greek Candidate survey of 2015 and some of the guidelines presented in this paper to be useful for a future Balkan candidate study based on web.

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For more information about the ECPR standing group "Elites and Political Leadership" visit: https://ecpr.eu/StandingGroups/StandingGroupHome.aspx?ID=54

For more information about the Parliamentary Candidates in UK (PCUK) project visit: http://parliamentarycandidates.org

For more information about the "Observatorio de Elites Parlamentarias de América Latina" (Elites) visit: http://americo.usal.es/oir/elites/

For more information about the IntUne mass survey visit: http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/34272

For more information about the Comparative Candidates Survey (CCS) visit: http://www.comparativecandidates.org

The website of the Greek Parliament: http://www.hellenicparliament.gr