Turning the tables: making surveys relevant in the classroom

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Abstract: Researchers want to survey students. Instructors have little incentive to allow their class to be surveyed and students have little incentive to be surveyed. This paper suggests a solution to this problem for researchers, students and instructors of statistics classes. Research suggests that active survey announcement and the offering of extra credit increases survey response rates over passive survey announcement and no extra credit. Therefore, a course instructor can have an influential role in the response rate of electronic surveys administered over time. Instructors can offer extra credit in good conscience if the survey offers a class benefit that can be used for discussion and class activity. Students receive extra credit towards their grade as well as experience working with new data sets. Instructors receive an additional teaching opportunity, and researchers receive a high survey response rate. The process of engaging the researcher, the instructor and the students is detailed.

Keywords: extra credit; survey administration; participation incentives; research incentives; classroom; survey relevancy; class surveys; statistics classes; response rate; student engagement.


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1 Introduction

In an academic institution where research is commonplace, students are often the guinea pigs for various research studies utilising sample survey methods. The following is a detailed exercise on how to take advantage of a situation where your class has been targeted for a survey so that you can make the experience both relevant and instructive for your class.

The premise for this scenario is that an instructor of a statistics class has been approached by a researcher and asked if the researcher can survey the instructor’s students. Alternatively, the instructor his or herself is embarking on a study and would like to survey his or her own class. There are, therefore, several stakeholders involved in this process: the instructor, the researcher (if different from the instructor) and the students. Ideally, each stakeholder should benefit from the experience of the survey, yet that is not always the case.

2 The survey paradox

Class-based surveys offer unique opportunities and challenges for both the researcher and the instructor of the class. Obviously the researcher wants to garner the best response rate possible. The instructor, on the other hand, might prefer that his or her class not to be surveyed due to the loss of class time or in the case of an online survey in off-hours, prefer to minimise the distraction to the class by making scant reference to it. After all, what is the incentive for an instructor to agree to their class being surveyed? Other than doing a favour for a colleague or student doing the research, there is typically no value to the instructor. For that matter, what is the incentive for the students to take the survey?
However, if the survey takes place in a class-based setting, and if an incentive is desired to increase participation, the researcher will most likely encourage the instructor to offer extra credit. Extra credit can be a divisive issue for many academics, but it has been shown to be a motivational force to improve student participation in classroom or course-related activities (Carlenord, 1994; Junn, 1995; Roberts, 2000).

The conceptual problem with extra credit as an incentive is that students are receiving credit towards their grade in a class for participating in an activity that has nothing whatsoever to do with the learning objectives of the class. This cuts to the heart of why many instructors would hesitate or refuse to grant this kind of incentive. Still, there are ways to overcome this problem and make the survey situation relevant for your class.

3 The hook

‘The Hook’ is a reference to some kind of incentive or bait that might be used when trying to hook a fish. In this case, the instructor is preparing to ask the researcher to provide an incentive to the instructor in order to use their class for participation. In order to ensure the highest survey participation in their class, the instructor is prepared to offer extra credit to their students in exchange for their participation. However (here is ‘The Hook’) to make the extra credit relevant to the class, the instructor requests a deliverable from the researcher that will be useful for class discussion. The possibilities are virtually limitless, but here are some examples:

- Sample and response information from multiple administrations of the survey to allow the class to calculate response rates, power, etc.
- The modified version or ‘scrubbed’ version of the full data set in which no personally identifiable data are provided. The data would be for non-publishable use in class.
- Full data sets from previously published studies by the researcher for use in class (maybe their relevance has passed, but data can always be useful).
- Pilot study data from this or other surveys for use in class (pilot studies are often used to test relationships or items before a full study, and researchers may not care as much about parting with them).
- Treatment group information and response data from experimental design surveys.
- Partial data sets to use in class (maybe just the demographic information or some logically coherent piece that could be useful).
- A short presentation on the results.
- A presentation by the researcher of statistical techniques that could be applied to the data set. This might not be the same statistical analysis techniques that the researcher will use in a research publication. For example, the researcher might demonstrate how to perform regression analysis with several of the study’s variables, while the eventual publication from this study might instead use structural equation modelling.
- A case-based assignment that uses results from the survey.
4 Securing the deliverable

Armed with some of the above options, the instructor must open a dialogue with the researcher and make the request for a deliverable. It may be that none of the suggestions the instructor has come up with are palatable to the researcher, but this should not prevent the researcher from coming up with some suggestions of their own. Even if the researcher is extremely protective of their data, the instrument can be withheld and the variables renamed (even to the degree of just assigning letters ‘A’, ‘B’, etc.) to prevent publication, but still provide value to a statistics class. Other protective alterations include stripping a percentage of a data set’s cases or stripping all the construct data leaving only demographics.

It is possible that an investigator might balk at providing partial or full data on the grounds that it would go against the purpose of the data collection and thus violate the approval they have from their governing research board. However, this typically is not a valid concern. The U.S. Department of Health & Human Services (see www.hhs.gov) which serves as the regulator for Institutional Research Boards (IRBs) at Universities in the USA is clear that its guidelines cover the activities of the actual research process that involve human subjects or the safeguarding of individually identifiable private information:

> these terms apply whenever the Institution becomes engaged in human subjects research… In general, the Institution becomes so engaged whenever (a) the Institution’s employees or agents intervene or interact with human subjects for purposes of federally-conducted or – supported research; (b) the Institution’s employees or agents obtain individually identifiable private information about human subjects for purposes of federally-conducted or – supported research; or (c) the Institution receives a direct federal award to conduct human subjects research, even where all activities involving human subjects are carried out by a subcontractor or collaborator (U.S. Department of Health & Human Services, 2009).

Therefore, as long as the investigator is compliant with his Institutional Research Board during the research process and does not release individually identifiable subject information, the data, once collected, are free to be used as the investigator wishes (up to and including giving it to a third-party to publish papers with it!). For assurance it is suggested that you contact a representative from your university IRB and request verification.

Another issue is that if extra credit is given, most university IRBs require instructors to offer a ‘non-research alternative’ that would take a student approximately the same amount of time as the survey and receive the same extra credit incentive. This alternative might be a short paper on the subject of the investigator’s research. The instructor might negotiate with the investigator who would grade the extra credit paper should any student choose that alternative. It should be noted, however, that in the experience of these authors, students seldom choose the option of writing a paper rather than filling out a survey.
5 Engaging the students

Once the deliverable is agreed upon, it is time to engage the students. At this stage the task is to administer the survey to your students while explaining the incentive of the extra credit without unduly influencing them to participate. This may sound a little confusing, but depending on what will be done with the data, you may or may not want to reveal everything you expect to do with the data. For example, suppose the researcher intends to survey multiple classes, some of which will be given extra credit and some of which will not. If the intent is to measure the difference between those groups, it is important not to introduce another incentive such as ‘everyone should participate because we will be using this data in class’ to avoid influencing the results.

6 Pitfalls to avoid

There are a number of things to avoid at each stage of this process.

- If you will receive a full or partial data set, do not offer the class too many details regarding what you plan to do with it before the administration of the survey to avoid deliberate manipulation of the data.

- Make certain anything you and the researcher plan to do is permissible by your academic research governing board (most studies that are not intended to be published do not need board approval).

- Make certain the researcher’s academic research board request is modified, if necessary, to accommodate any change in their study due to providing a deliverable to your class.

- Some deliverables require access to specific variables of a survey instrument (such as a dependent variable); this must either be worked out with the researcher beforehand or as an alternative you may get them to agree to perform the calculations for you.

7 The fulfilment

The final act of this exercise is to utilise the deliverable as a learning activity in class. Depending on the deliverable, there are a number of challenging activities that can be done. If you receive a full or partial data set and an instrument, you can ask the students to examine the instrument and perform exploratory factor analysis. If you have survey metadata such as sample population and response, you can ask the students to calculate the response rate. If there are multiple treatments you can perform your own experimental design. You can withhold the data initially, yet explain the premise behind the study and show the instrument and/or model as well as ask the students to predict what will be found. Then, give them the data and have them determine whether their prediction matches the results. Another option is to create a case that uses the results and use that as the bases of a discussion about the use of statistics in addressing real
problems. Several approaches can be used in creating the case. Fictitious but realistic data could be provided or the results and analysis of the real data can be provided at the researcher’s discretion. There are far more possibilities than can be listed here.

The benefits for using live data from studies in progress include: (a) a break from the same old data that everyone has looked at before, (b) the chance to look at current research topics from various disciplines and (c) of course, the very real potential of the data not acting the way it was intended, which may not often occur when using data sets established for use in class.

References


