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How to raise response rates for teaching evaluations – an experiment

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Abstract

In this paper, we describe the results of an experiment we carried out see whether specific features of student evaluations affected the response rate. This experiment included the majority of courses on offer during the fall term in one large department, and involved students in all years of the undergraduate programme. The main aspects of the evaluation process being tested were the mode of delivery (paper versus online), the online platform (Moodle, the VLE of choice, versus Opinio, a more targeted survey platform), and the way in which survey completion was requested (in-class prompt/in-class start versus an email). Since we had access to nearly 1000 students across 7 courses, we were able to allocate different groups of students within each course to a specific treatment, e.g a paper survey. This meant

that we were able to control for some of the standard issues arising in such a study, including type of course, student's year of study, instructor and class size. One of the most interesting findings was that response rates could be increased significantly - almost to the level of paper surveys - with an in-class prompt for an online survey.

Keywords

Contents

Section 1: Introduction

One of the most effective ways for teachers to receive feedback on their teaching is through student evaluations. There has been much discussion about the value of these evaluations for measuring teaching quality and student learning gain (Weinberg, Hashimoto, & Fleisher, 2009) (Feistauer & Richter, 2017) (Uttl, White, & Gonzalez, 2017). Independent of these debates, it is clear that such feedback can have an important influence on a teacher's reflections on the teaching and learning process in their course. The effectiveness of this feedback channel depends on the representativeness of the responses, and therefore having a sufficiently high response rate is very important. In this paper, we describe an experiment aimed at testing various measures to increase response rates. These measures range from variations in the length of the survey to different platforms for delivering the survey.

We studied a large world-renowned economics department in the UK with one of the largest undergraduate programmes in the university. Admission to the undergraduate economics degrees offered by the department is highly competitive, while the research profile of the department has been consistently high across the world. The standard undergraduate degree is three years long, with students taking the majority of their courses in the department as is typical in the British system. A handful of students opted for a four year variant of the main degree, in which one year is spent studying abroad. Each cohort (combining the two variants of the undergraduate degree) is about 300 strong, and average class size ranges from 250 or more in the mandatory core courses down to about 25-30 in some of the smaller optional courses. Given the high profile of the department, students expect a high-quality education, but the size of the classes makes it quite difficult to get feedback on the teaching and learning experience. This is particularly problematic as annual tuition fees for UK and EU domiciled students at state universities tripled to £9000 (about $14000) in 2012 and since then, students have become more focused on value for money.

Like many other institutions with large cohorts, the university we studied has gradually moved away from paper evaluations, handed out by lecturers and collected by the students themselves to preserve anonymity, towards online surveys. At the same time, it has developed a greater online teaching and learning presence, in particular for the delivery of course materials. The department uses Moodle as the Virtual Learning Environment, and most courses have an active presence on Moodle, where lecture slides are posted, coursework is posted and submitted and through which, emails are sent and received. For this reason, Moodle surveys have been considered a favoured option to deliver course evaluations. However other online platforms have been explored as well and this was one of the main variants we tested in our experiment.

Finally, as the department has moved from paper to online surveys, the length of the survey has increased as well. This is partly due to administrative data requirements, but also partly due to the changing nature of the teaching and learning process. New questions are added to cover a new aspect of teaching, e.g. the recording of lectures, but this is often in addition to existing questions. Part of the rationale for our study was to look at the structure of the survey to determine whether both the length and the content were appropriate for the needs of the department and the students. As length and structure of a survey clearly influences response rates, this was an important part of our study.

In the next section, we review the literature on the value of student feedback and on various methods to improve response rates. This provides the background against which we designed our experiment. Section 3 describes the initial research we carried out by talking to various stakeholders about the specific context of student evaluations in our setting. In Section 4, we describe the framework of the experiment itself, including the variants tested and the setup of the control and treatment groups. The results of the experiment are presented in Section 5, while Section 6 concludes.

Section 2: Related Literature

In this section, we discuss the literature on the value of student feedback and the various methods tested to raise response rates in these surveys. Our experiment focuses on how to improve responses rates, recognising that the value of the feedback to a teacher depends on how representative it is. It is also important to consider our experiment in the context of wider discussion on whether feedback from surveys adequately reflects the quality of the teaching and learning experience. The significance of this research is also amplified by the increased role of student evaluations in policy-making, most notably with the introduction in the UK of the Teaching Excellence and Student Outcomes Framework (TEF)[1].

2.1 Value of student feedback

Feedback from students is used in higher education for different purposes including as input to a teacher's appraisal, as a wider metric of degree programme or Department quality and by individual teachers as a source of information on how to improve a course (Mertova & Nair, 2011) (Brockx, Mortelmans, & Spooren, 2013) (Kadhila & Nyathi, 2015). In the department we study, the focus is on the value of student feedback for the individual lecturer in the course. Like most higher education instititions, the department uses an end-of-course evaluation that involves a series of questions scored on a Likert Scale as well as open-ended questions for student comments (Becker & Watts, 1999).

The value of feedback to the teachers is dependent on the (perceived) effectiveness of the evaluation system and the quality of responses; often measured in terms of response rates and completion rates for those who respond. Nair and Mertova (2011) note that in many cases lecturers are dismissive of, or resistant to, feedback because of questions about the

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[1] Further information on the TEF can be found on the Office for Students website: https://www.officeforstudents.org.uk/advice-and-guidance/teaching/what-is-the-tef/.

effectiveness of the evaluation process. In many cases, particularly in economics, teachers raise concerns about the impact of low response rates and sample selection bias on the quality of the data. There are also concerns about the extent to which scores relate more to personal characteristics of the teacher (e.g. race and gender) than to teaching productivity (Allgood, Walstad, & Siegfried, 2015). Lecturers may also have less interest in the feedback if the process is overly bureaucratic and cumbersome and, in parallel, is disconnected from teaching on the ground (Harvey, 2011). For example, general surveys are unlikely to provide a teacher with feedback on the value of technologies used in the classroom or on how students perceived carefully designed assignments (Becker & Watts, 1999). Some teachers may question whether the undergraduate students are in a reasonable position to assess quality of teaching but others emphasise that students are well placed to provide the feedback on the student experience of teaching quality (Kadhila & Nyathi, 2015). Allgood et al (2015) emphasise that the feedback is more likely to be considered relevant if it impacts on behaviour of individual teachers or of the department more widely (Allgood, Walstad, & Siegfried, 2015). The higher the response rate, the more likely it is that a course teacher will make use of the feedback received.

Students, who may view themselves as consumers of a service, are likely to view feedback in different ways to lecturers (Mertova & Nair, 2011). For example they may have a different perspective on what good teaching is and as a result interpret questions differently to those that design them (Brockx, Mortelmans, & Spooren, 2013). They may use feedback data on a course to inform their decisions on what courses to choose or even what institution to attend. Students may not complete surveys if they become cynical about how information provided is used, if at all (Kadhila & Nyathi, 2015). This is increasingly likely to arise as institutions collect more and more data and students do not understand how that data is used (Harvey, 2011). The quality of responses received, and the response rate itself, will depend

on student perceptions of the extent to which teachers, and others within a Department, take the responses seriously and make use of the feedback. As noted earlier, this will depend on the response rate highlighting the need to find ways to encourage students to complete the feedback.

2.2 Increasing response rates through prompts

Paper-based surveys in the classroom have high response rates because of the captive audience but are time-consuming, may raise concerns about anonymity and have high administrative processing costs. Online or web-based survey are known to have lower response rates, potentially but not necessarily making results less reliable, but have benefits in terms of anonymity, no time constraints or lost class time, flexibility for different types of learning environments and administrative efficiencies (Bennett & Nair, 2011). There is also evidence that students take more time to give longer responses to open-ended questions online (Anderson, Cain, & Bird, 2005). Mean response rates may not be unduly affected by lower response rates online, even if standard errors are affected (DeLoach, 2012).

Bennett and Nair (2011) emphasise that low response rates are often correlated with inaction by those who carry out the survey. They suggest that the downsides can be managed by developing strategies alongside the online survey to prompt students to participate. These strategies can include, for example, sending reminder emails or requiring completion before access is provided to other information online (Norris & Conn, 2005). Students should also be told why the feedback is being collected and how it will be used (Kadhila & Nyathi, 2015). The literature comparing paper-based versus online tends to assume that online is not 'in class'.

Bennett and Nair (2011) also discuss the case for explicit incentives to encourage participation but suggest that the evidence on value is inconclusive and note that depending on the design of the incentives ethical issues may arise. The authors also emphasise that those

completing the survey will require reassurance about confidentiality and anonymity and more generally will be more likely to respond if they expect that their feedback will be responded to and considered valuable. Communication between lecturers, students and any administrative team involved with the survey is key to increasing response rates to online surveys.

Students are also more likely to participate if the questions asked provide students with the opportunity to give feedback that they think matters. Providing the opportunity to present more reflective comments in open questions may provide more incentive to students to complete and in many cases result in valuable practical ideas for the teacher (Harvey, 2011).

2.3 Increasing Response Rates by closing the feedback loop

Much of the literature emphasises that for the feedback to be considered worthwhile and credible by the students they must see those receiving the feedback acting on it in a meaningful way (Mertova & Nair, 2011). For example, it has been suggested that teachers should motivate students to complete feedback by explaining to them what actions have been taken in response to prior feedback (Mertova & Nair, 2011) (Kadhila & Nyathi, 2015). This can happen at individual course-level and, where relevant, as part of wider department/programme or institution decision-making. Assessing the data, responding to the findings and explaining the response to the students increases confidence in the results and should encourage future participation (Mertova & Nair, 2011).

Unfortunately, evidence in economics departments is that instructors do not use evaluations to change their courses (DeLoach, 2012). Economics teachers may need guidance and support in this area; for example through effective peer reviews and training from colleagues more actively engaged in this type of process. Providing incentives to teachers to engage is also important, particularly where teaching evaluations do not play a formal role in

salary, promotion or tenure decisions. More could also be done at department or institution level to ensure that there are systems in place for collecting, analysing and using the feedback received. For example, departments could prepare and publish evaluation reports, identify key action plans and consult on proposed actions with students (Kadhila & Nyathi, 2015).

Students are more likely to see the value of giving feedback if they receive quality feedback themselves during a course (Harvey, 2011). This is because they will generally be more motivated and engaged learners. Teachers will also need support and training to help them develop skills on giving feedback and reflecting on feedback received from students (Harvey, 2011). Lecturers or institutions that develop a reputation for taking the feedback cycle seriously are more likely to observe student engagement with the surveys (Harvey, 2011).

Evidence from research on surveys in Monash University, University of Western Australia and Oxford University also showed the importance of teachers communicating throughout the process with students; before, during and after the survey (Mertova & Nair, 2011). There are also discussions about whether questionnaires or other surveys are the best ways of collecting feedback. Direct dialogue between lecturer and student could be more useful, for example informally in lecture, through informal events, using online tools including blogs and discussion forums, from committee discussions with student representatives or through focus groups (Harvey, 2011). There is value in using these tools alongside any required formal questionnaires so long as the lecturer continues to demonstrate their value by taking action and explaining responses to feedback received (Harvey, 2011). Multiple strategies working together is likely to be most effective (Harvey, 2011). In the next section we explain how we used the implications of this research to design the optimal structure of our teaching evaluations.

Section 3: Improving communication between lecturers and students

Falling response rates had become a major source of concern for the university we studied, with average rate across all undergraduate courses falling from 60% in 2010-11 to 30% in 2014-15. For some courses, response rates in 2014-15 were as low as 11-15%. As Figure 1 shows, the courses that were included in the experiment have seen a more or less steady decline in response rates which correspond to some degree to changes in the structure and delivery of the evaluations. The number of questions increased significantly from 2011-12 to 2012-13, and the department moved from one online survey format (Opinio) to another (Moodle, the Learning Management System or LMS used in the university for all teaching purposes) between 2013-14 and 2014-15.

To address this trend, we first spoke with student representatives who had canvassed opinion among their peers to learn more about the issues with the evaluations process from their point of view. The main message from students was that they were unsure about who read the evaluations and how this information was used. Students felt that given the impression that these surveys were used only for administrative purposes and not fed back into the course design process, even 5 minutes spent completing them was a waste of time. They also felt that, even when changes were made because of issues that were raised in evaluations, these would only benefit later cohorts of students and so the surveys were not a worthwhile use of their time.
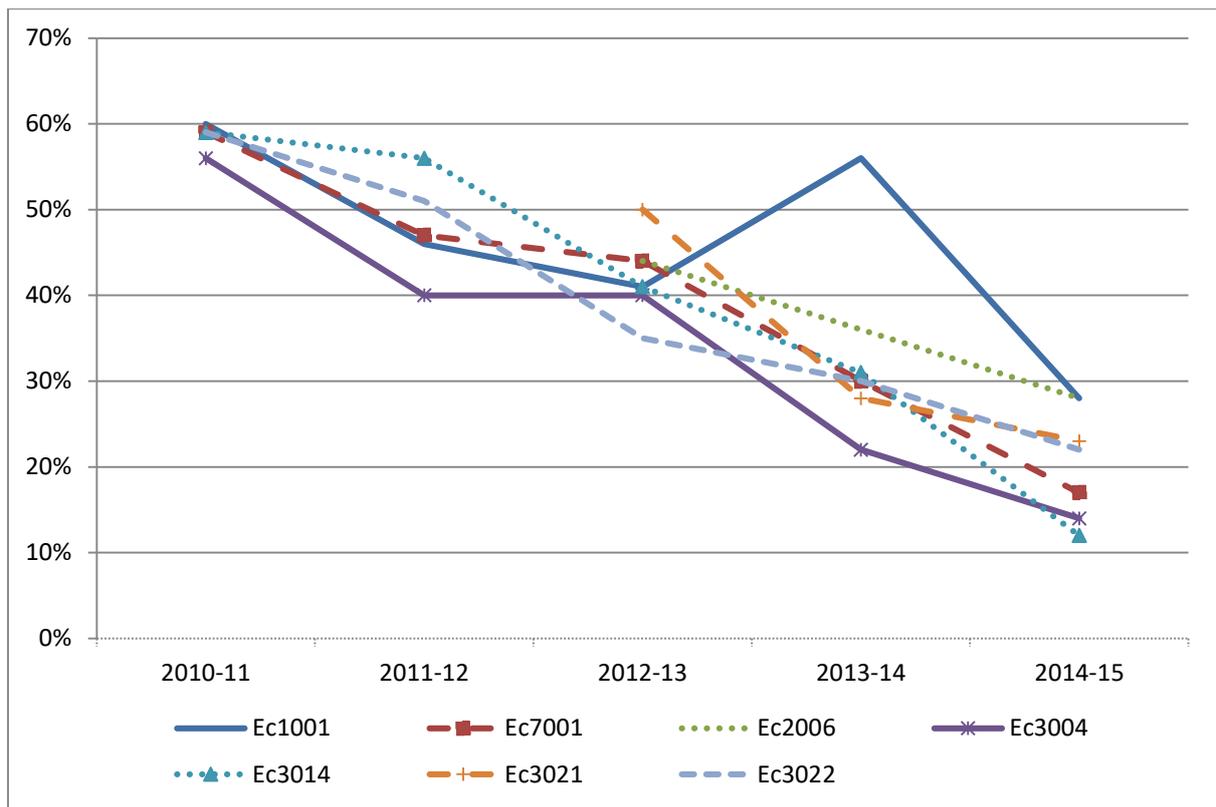
Figure 1: Response rates in the courses included in the experiment

In order to address this feedback from students, a couple of changes were instituted

prior to the start of our experiment in line with suggestions from the literature cited in Section

2. The first one was the introduction of a feature called "You Said, We Did", which

comprised a list of selected comments students had included in their evaluations, and the

lecturer's response to them. These were posted at the top of each course's Moodle page so

that students could see how their comments were used. Comments ranged from requests to

have lecture recordings[2] made available, to the use of more or less material on lecture slides

and issues with the reading list. Lecturer responses often addressed the comment directly, by

changing the relevant aspect of the course, but very often, lecturers simply explained the

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[2] Most lectures in the department are recorded and the recordings are posted on the Moodle course
page within a day or so. A few lecturers do not record their teaching, and students, used to
recordings in other courses, flag this up in their evaluations regularly.

rationale for a particular decision. The fact that comments and responses for a previous

version of the course

You said, We did – June 2015

The table below highlights how the economics Department teaching staff consider and respond to feedback obtained from students during term time and in end of term module evaluations. Feedback from students is a really valuable resource to aid our understanding of how to improve learning in all courses. **Please continue to take the time to provide us with your feedback. It does make a difference!**

You said	We did
Provide more detailed feedback on how to improve essay writing	Writing Guide provided to students, guide answers for homework essays uploaded onto Moodle and students encouraged to sign-up to Skills Lab for more focused support. Students are always welcome to seek further feedback on marked homework in office hours.
Improve structure of debate in tutorial	Under review for 2015/16 to make sure all students have equal opportunity to participate.
There are too many readings	This is a subject where there is no 'right answer' and many different views. The lecturer explains that students need to read a mix of articles and textbook chapters to appreciate the debates and evidence in the areas being discussed but there is no compulsory readings on the list so students can pick and choose which ones to do. This will be made clearer at the start of the course in future years. Each year attempts are made to reduce the length of the reading list without losing the value of students having choice about what to read. In 2015/16 the lecturer will point out more connections between lecture discussion and readings each week. More generally students are encouraged to develop effective Reading and Note Taking Skills, taking advantage of Skills Lab.

Figure 2: "You Said, We Did" feature posted on course Moodle page

were posted also showed students that any improvements in the course that they were

benefitting from were due to comments made by their predecessors. This would hopefully

encourage students to take their end of term evaluations seriously, in the spirit of "paying it

forward" for the benefit of future students. Thus the role of this feature was to highlight the

fact that comments on the evaluation are taken seriously, to improve communication between

faculty and students and to create a culture where students took the evaluations seriously even if they only benefitted future students.

The second innovation introduced prior to the experiment was a mid-term evaluation on Moodle. Many lecturers in the department had been using mid-term evaluations prior to this, but this change meant that all lecturers were strongly encouraged to use these. A template evaluation was automatically posted on all Moodle course pages, though lecturers could edit or even delete these if they wanted. The main reason for pushing the mid-term evaluation was to set up channels of communication between lecturers and students before the end of term, so that any obvious and straightforward changes could be introduced during the term itself. This directly addressed the feedback from students about changes being made too late to benefit them. Another motivation for this move was to model the feedback process, whereby lecturers could address issues raised in the mid-term evaluations in the class and note that a similar process of review was used for end-of-term evaluations as well. The intention was to underline the fact that the evaluations were not just an administrative exercise, and that lecturers actually read and acted upon comments made in these surveys. As the literature cited in Section 2 shows, establishing multiple channels of feedback between lecturers and students can enhance the teaching and learning process.

One of the main reasons we started on this study was that response rates in the department had been falling steadily over the years while the course evaluation itself had been getting longer as more questions were added. Most questions on the evaluation were about the course and the faculty member teaching it, but questions related to the teaching assistants (often multiple assistants for the larger courses) were also included. Before the experiment started, a decision was made to separate out the questions relating to the teaching assistant, thereby shortening the main survey somewhat for all courses, irrespective of whether they participated in the experiment or not. In Section 5, we present some preliminary

data on response rates in courses that did not participate in the main experiment but were subject to this new separated structure of evaluation.

Section 4: Design of the Experiment

The changes outlined in the previous section were common sense innovations which could be introduced without much cost commitments. The more technical aspects of the survey itself, like the platform and the exact method of delivery, were more likely to have resource implications but could influence response rates. For example, we found anecdotal evidence that the move from paper surveys to online ones and the move from Opinio to Moodle for online surveys were both accompanied by a fall in response rates. Switching between online platforms has setup costs, even when the platforms are free to use, and moving to paper surveys increases handling time and effort exponentially, particularly with nearly a thousand students across the whole undergraduate programme. To analyse the net effect of different options, considering the benefits as well as the costs, we ran an experiment over the course of one academic term.

The experiment involved several courses across all the years of the three year undergraduate programme[3]. This implied that all first year students in the department participated in the experiment, as the mandatory first year course was included in the experiment. About half of the final year students participated, while about a fourth of the second year students were involved. Thus the results of the experiment are quite generalizable across students in different years of undergraduate study.

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[3] More than two thirds of the courses offered in the department over the term were involved in the experiment.

The experiment focused on the end-of-course evaluations for courses taught in the first term (September-December) of the 2015-16 academic year[4]. These evaluations were in the same format across all courses taught in the department, though individual faculty can add one question specific to their own course if they wish. The timetable for these evaluations – from when they go live in the last week of term till the closing date which is usually in the first week of classes for the next term – is also common across all courses. All lecturers are asked to make an announcement in class asking students to complete the evaluations, and a reminder email is also sent to all students. Once the surveys close, the results are analysed and made available to the faculty and subsequently to students by the middle of the following term.

4.1 Variations Tested

The literature cited in Section 2 shows that survey length and structure as well as delivery platform affect response rates. In keeping with these findings, we chose to test variations in the platform (paper versus various online platforms) as well as the presence (or not) of a prompt. Variation in the survey length was also trialled in a non-experimental fashion as the separation of the teaching assistant (TA) survey from the main one shortened the main survey automatically for all courses.

The main survey had 14 questions, 13 of which were multiple choice "agree, disagree" type questions while the last question was a free response one asking students for more comments. The first variation we included in the experiment was in terms of platforms for delivery of the survey. The options were a paper-based survey or an online one, either on Moodle or on Opinio. We compared the options in separate experiments: paper versus Moodle (two courses) and Moodle versus Opinio (three courses). The paper option, which

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[4] We found little difference in response rates across different terms of the academic year, so this term was chosen for logistical reasons.

was conducted at the end of small group tutorials, is a resource-intensive one, and therefore the only reason for including it in the experiment was to establish a benchmark for response rates, as historically, the fall in response rates had coincided with the move from paper to online surveys. Opinio is an online software designed specifically for surveys, while Moodle has a survey option built into it. As Moodle is the LMS used in the university, and university has a multi-user license for Opinio, both options are free at point of use for university staff and students. Moodle had been used by the Department in the previous two years and was therefore considered the 'status quo' option in this experiment.

The main advantage of Opinio over Moodle was that it had more user-friendly data analysis options and also sent students automatic reminders about the survey. Students may also have perceived that anonymity was guaranteed with Opinio more than with Moodle. Moodle was considered as a viable option because students were already using the platform to access learning materials and for assessment, so it may have been more natural for them to complete surveys on this platform as well. Paper, Opinio and Moodle surveys all had the same format though physical layout was somewhat different, and all of these included the same questions in the same order. The full list of questions on all surveys is included in Appendix A, while screenshots of the Moodle and Opinio surveys are in Appendix B

The second variation we tested (in two courses) was the in-class prompt for online surveys. The treatment group got five minutes at the end of the last tutorial (and a request from the tutor, though not from the lecturer) to start on the evaluation. The control group only got the usual e-mail reminders about the survey. Students would have normally required a bit more than five minutes to complete the survey, so the prompt was mostly focused at getting the students to go online and click through to the survey page and get a start on answering the questions. The prompt was tested on Moodle surveys only.

4.2 Treatment and Control Groups

For all courses in this degree programme, there are 10 weeks of lectures each term, supplemented by small-group tutorials roughly every other week. For each variation tested, we set up treatment and control groups based on the pre-assigned groups for these tutorials. The assignment of students across tutorial groups is roughly random. In general, department administrators divide the total enrolment of a course across a certain number of tutorials so that they are more or less equal-sized. To some extent, administrators look out for any potential timetabling conflicts, so that students taking a similar set of courses may expect to end up in the same tutorial group for each course. However, unlike in the US system, there is little variation in the courses actually taken by students as there are binding constraints on the number and type of courses to be taken, so that the assignment across tutorial groups ends up being quite random. Each tutorial group had about 15 students, though for the first year mandatory introductory course, this rose to 20 for some groups.

Within each course, roughly half the tutorial groups received the treatment, while the other half did not. This implied that roughly half of the students in each course were allocated to the treatment group while the other half were in the control group. For the first variation – Opinio versus Moodle – half the tutorial groups received a link to the Opinio survey while the other half received a link to the Moodle survey. Similarly, for the second option, half the tutorial groups received the paper evaluation in class and were asked to complete and hand it in at the end of the class, while the other half received an email link to the Moodle survey. Finally, the prompt option was tested by having half the tutorial groups receive a prompt and five minutes to start the survey in the last tutorial class, while the other half did not. In some cases, students who had missed their own tutorial for some reason attended a different tutorial and ended up being treated even though they were officially in the control group or vice versa. Because most tutorial groups tend to be full without any

additional seating and the department actively discourages such behaviour this is likely to have occurred only for a handful of students.

Section 5: Results

As described in Section 3, two main innovations were introduced in all courses prior to the experiment. These were the midterm evaluation and the "You Said, We Did" feature on the course Moodle pages. The TA survey was also separated out from the main (lecturer) evaluation as indicated in Section 4. All variations of the survey had the same set of questions. The courses listed here range from first to third (final) year ones, where the first years course numbers start with a 1, the second year ones with a 2 (these can also be taken by third years), and the third years ones start with a 3. The first year course referred to here is mandatory for the degree while all other courses are optional.

We start with some preliminary results showing the effects of introducing the midterm evaluation and the "You Said, We Did" feature, and separating out the TA survey from the main one. As they were introduced at roughly the same time, it is difficult to distinguish between their individual effects. Table 1 shows the response rates in the courses involved in the experiment since the 2010-11 academic year (courses not taught in a particular year are designated N/A for that year). The 2015-16 figures are for the control groups, in order the measure how much the non-experiment changes have affected the response rates. Compared to 2014-15 (which saw a large drop in the rates after the move to Moodle), there are some modest increases in 2015-16. However, the evidence is mixed, and the 2015-16 numbers are still lower than the 2013-14 (that is pre-Moodle) numbers in most courses, and are below the 2010-11 and 2012-13 numbers in all the courses listed.

COURSE	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16 (CONTROL)
EC1001	60%	46%	41%	56%	28%	39%
EC2001	59%	47%	44%	30%	17%	20%
EC2006	56%	N/A	44%	36%	28%	29%
EC3004	56%	40%	40%	22%	14%	4%
EC3014	59%	56%	41%	31%	12%	10%
EC3021	N/A	N/A	50%	28%	23%	20%
EC3022	59%	51%	35%	30%	22%	39%

Table 1: Response Rates in Courses involved in the Experiment

These results show that changes introduced prior to the experiment – the separation of the TA survey from the main one, the introduction of the midterm evaluation and the "You Said, We Did" feature – do not seem to have reversed the decline in response rates to any significant degree. While these changes were all common-sense measures and relatively low cost, their effect on response rates appears to be limited. It is possible however that the effect of these measures takes time to show up in the data. All these changes were aimed at affecting students' perception of how useful the evaluations are, so it is quite likely that these perceptions change slowly and so we should not expect to see any effect on response rates for a while.

Table 2 shows the results of the first variant we studied in the experiment: the Opinio versus Moodle option. The courses in which this variant tested ranged from the required introductory course, which an enrolment of more than 350 to a final year option with an enrolment close to 40. The other final year option in the trial included about half of the students in the year group. In the smaller option, there is little difference between the two options. However in the other two courses, there is a fairly large difference, with the Opinio

response rate being at least 17 percentage points higher than the Moodle rate. This is a difference of about one standard deviation. The larger final year option shows an even bigger difference between the two response rates.

COURSE	OPINIO RESPONSE RATE	MOODLE RESPONSE RATE	ENROLMENT
Ec1001	56%	39%	356
Ec 3014	42%	10%	159
Ec 3021	19%	19%	41

Table 2: Response rates – Moodle vs Opinio

The reason why the Moodle survey was considered was that most courses already used Moodle quite extensively, and so as students were used to going on Moodle for course-related activities, they would have less resistance to doing a survey there rather than going to another platform. Given this, the difference in response rates above is quite striking. As shown in the appendix, the layout of the Opinio is slightly more user-friendly than Moodle. This may not be a big issue for students, but the department administrators who are responsible for collating this data and making it available to faculty, TAs and students report that Opinio makes this job much easier. Opinio also sends automated reminder emails to students whereas with Moodle the administrative team or the course teacher needs to proactively send such emails. So Opinio is the less resource-intensive option for several reasons, and therefore this difference in response rates is a welcome finding. One reason for the finding may be that even though both survey options were anonymous, it is possible that students felt less assured of this in Moodle as this was also where they submitted their (named) coursework.

Table 3 reports the results of the paper survey versus Moodle questionnaire trial. The format of the two evaluations was very similar and included the same questions. The paper survey was conducted at the end of small group tutorial classes. Here the two courses were second and third year options with roughly similar enrolment. It should be noted that slightly smaller courses were chosen to investigate this option so that collating the paper responses was feasible. As Table 3 shows, the response rates are strikingly different. For the third year option, the paper response rate is more than 20 percentage points (slightly more than 1 standard deviation) higher than the Moodle rate, while for the second year option, the paper rate is almost three times the Moodle rate.

MODULE	PAPER RESPONSE RATE	MOODLE RESPONSE RATE	ENROLLMENT
Ec2006	83%	29%	56
Ec3022	61%	39%	77

Table 3: Response rates – Paper vs Online (Moodle)

The most obvious way to explain this is that those completing the paper-based survey are a captive audience and therefore more likely to complete it. It is also possible that the anonymity issue with Moodle cited before is playing a role here. Finally, as the paper surveys are done in the classroom (in tutorials), it is possible that the presence of tutor who has personally requested students to complete the surveys raises response rates. So by definition paper-based surveys have the prompt built into them.

The final variation we tested in this experiment was providing a prompt for online surveys in the last tutorial of the term. As explained in Section 4, the treatment group were given five minutes at the end of the class and asked to start on the evaluation. All these surveys were done on Moodle. Table 4 shows that the response rates more than doubled with the prompt for the second year option, and there was a much larger effect for the third year

option. In fact the prompt response rate in the third year option is almost as high as the highest rate with the paper option shown in Table 3. This is quite striking as all these surveys were carried out on Moodle, which being an online platform makes it much easier to analyse the collected data than using the paper option.

MODULE	"PROMPT" RESPONSE RATE	"NO PROMPT" RESPONSE RATE	ENROLLMENT
Ec3004	78%	4%	145
Ec2001	44%	20%	69

Table 4: Response rates – Prompt vs No Prompt with Moodle survey

One way to interpret the overall results is that a nudge of some kind increases response rates. For the paper survey and the in-class prompt, these were in-person nudges in the form of a request by tutors. For Opinio, the nudge came in the form of regular email reminders, something that Moodle surveys do not send automatically. Consistent with the idea that a personal nudge works better than a virtual one, the effect of the Opinio platform is much smaller than the effect of either the paper survey or the in-class prompt. Unlike the paper survey, the in-class prompt is not very resource-intensive both in terms of time – students are only given five minutes in the class to start the evaluation – and other resources. The in-class prompt can also be used with a range of different online platforms, so while Opinio appears to be the better of the two platforms under consideration at least from an administrative point of view, if better platforms become available at a later date, the in-class prompt can be used in conjunction with them. The final observation is that the highest response rates with the in-class prompt are higher than the rates achieved in 2010-11, the year with the highest response rates and the shortest survey. All the variations tested in the

23

experiment have increased response rates significantly, with the paper survey and the prompt raising them back to (and sometime beyond) the highest historical rates.

Section 6: Conclusion

In this paper, we describe the results of an experiment we ran to test the efficacy of various ways to structure and deliver student evaluations in raising response rates. Faced with falling response rates over the years, we started by canvassing student opinion about why response rates were low. We found that students often did not complete the surveys because they thought it was merely an administrative exercise and did not affect the teaching and learning experience. To address this, we introduced a series of changes that highlighted the use and value of evaluations in improving teaching both for students in the current cohort and for those who would come later. These changes appear to have stemmed the decline in response rates somewhat, but will clearly take some time to have full effect.

As the format and delivery of surveys are often found to affect response rates, we ran an experiment to test the effect of having paper surveys rather than online ones, having different online platforms, and having an in-class prompt. This experiment involved courses across all three years of the undergraduate programme, and included most students in the department. Because of the structure of the programme, we were able to allocate students across treatment and control groups more or less randomly, and therefore our results could be interpreted to show a causal relationship. We found that a switch to paper surveys raised response rates the most, but the in-class prompt also had a significant positive effect. A move to Opinio, the dedicated survey platform, also raised response rates relative to running surveys on Moodle.

Based on these results, it seems safe to conclude that a nudge or prompt raises response rates in student evaluations. Both the paper surveys and the in-class prompt involved the tutor personally asking students to complete the survey in class, either fully or

partially. The Opinio survey, while online, sent several reminder emails to prompt the student to complete the survey. The effectiveness of the Opinio option in raising response rates was less than that of the paper survey or the prompt, indicating that an in-person nudge is more effective than an online one. As the in-class prompt paired with an online survey is a relatively inexpensive alternative to a paper survey, it is this option that has now been introduced for the department's teaching evaluation process. If the motivation for such evaluations is partly to help students reflect upon their learning experience, then the increase in response rates obtained in this experiment should also have a direct positive effect on students. Higher response rates may also encourage more lecturers to reflect on the feedback and consider implications for their teaching and learning strategies. Reporting back to students on this reflection, through the You Said, We Did initiative, will help close the feedback loop further.

One caveat to the results above is that while response rates may have risen, the quality of content in responses may have fallen or at least, not improved. For example, while paper surveys increase the completion rates, as handwriting answers to free-response questions is quite tedious, students may opt to skip these. As these comments are likely to be most useful to lecturers in tweaking or in fact redesigning the learning and teaching process, such a change would defeat a main purpose of the evaluation process. Measuring the effect of the variants tested on the probability of completing the free response question and some measure of the quality of responses are two tasks that are on our research agenda. We also plan to take a closer look at the content of the questions to see whether this might affect the response rate and quality.

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Appendix A: List of Questions on End of Term Survey

1. The lectures were useful to my understanding of the module
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

2. It was clear what reading was required
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

3. The slides or other visual material were adequate & well-prepared
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

4. The module Moodle page was useful
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

5. The course connected well with the pre-requisites
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

6. My lecturer was easily contactable during his/her office hours
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

7. The Practical/Demo lecture sessions were useful to my understanding of the course (if applicable)
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

8. I had a clear understanding of the standards required in my assessed work
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

9. I would recommend this module to other students
   ☐ disagree   ☐ neither agree nor disagree   ☐ agree

10. The pace of the lectures was…
    ☐ Too low   ☐ About right   ☐ Too high

11. The difficulty of the coursework was…
    ☐ Too low   ☐ About right   ☐ Too high

12. The quantity of coursework was…
    ☐ Too low   ☐ About right   ☐ Too high

13. OVERALL
This should be your summary on a 5-point scale of your total experience of the module: lectures, classes, reading, coursework and organisation.
Please rate on a scale of 1-5 where 1=Very poor and 5=Very good

1	2	3	4	5
☐	☐	☐	☐	☐

14. FREE COMMENTS
Please write 2 things you liked about the course and 2 things you think could be improved.

If you ticked "disagree", "too low", or "too high" to any question, please elaborate:

For example, for Q. 4, if you disagree please elaborate on how the Moodle page could be improved (more information, better organised, etc.).

Appendix B: Moodle and Opinio Survey Layouts

Figure B1: Moodle Questionnaire

Figure B2a: First page of Opinio survey

Figure B2b: Example of rating question on Opinio survey

Figure B2c: Example of free response question in Opinio survey