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The effect of HMRC Taxpayer Assistance on compliance:

An experimental investigation

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The National Audit Office commissioned the Tax Administration Research Centre to explore the relationship between taxpayer's experience and tax compliance outcomes through a series of controlled experiments. This followed the National Audit Office's findings in its report 'The Quality of Service for Personal Taxpayers' that there was some evidence of a relationship which needed more detailed exploration.

Disclaimer

The views in this report are the authors' own and do not necessarily reflect those of National Audit Office.

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1. Introduction

This report describes an experiment on tax compliance behaviour undertaken online and at the Finance and Economics Experiments Laboratory at Exeter (FEELE) at the University of Exeter between January and April 2016. The research was funded under contract by the National Audit Office.

In May 2016 a report by the National Audit Office provided an in-depth review of the impact of HM Revenue & Customs (HMRC) customer service on personal taxpayers. It estimated that 17.5 million taxpayers used HMRC's information and advice services in 2015. The report found that the quality of service experienced by personal taxpayers may have an impact on tax compliance. This experiment complements the report and investigates whether HMRC tax guidance affects tax compliance.

Tax guidance provided by HMRC is often the starting point of the taxpayer journey. A typical taxpayer may first consult the guidance before seeking further interaction with HMRC. The contents as well as the delivery form of the contents largely determine the ease of comprehension and thereby the need for additional help. Consequently, the quality of the tax guidance (e.g., the ease of comprehension) may affect the demand for further contact with HMRC and ultimately influence the overall tax compliance level. Taxpayers who are "willing and able" or "willing but need help" may be unintentionally non-compliant. Furthermore, if the cost of seeking help from HMRC exceeds the benefits from being able to complete a fully compliant tax return, those taxpayers may simply resort to their own best endeavours to complete a compliant tax return or potentially even behave in a deliberately non-compliant manner[1] (see, e.g., Paetzold & Winner, 2016; Scheer et al., 2011). As a result, it is reasonable to assume that by improving the quality of the guidance HMRC may help ease the burden of customer service (thereby reducing the cost of filing a fully compliant tax return) and further encourage voluntary compliance. In this experiment, we take the first step in addressing whether the content and the delivery form of HMRC guidance may have an impact on tax compliance. If so, we aim to estimate the magnitude of the effect. In addition, we further explore the effect of a support line handled by tax advisors on tax compliance.

We choose self-employment as the basis for the experimental tax profile due to the level of relevance to the self-assessment population as a whole. According to the Office for National Statistics (ONS) 2015-16 Q3 labour force survey, 4.7 million individuals in the UK are self-employed (full-time and part-time), which accounts for 14.7% of all people in work. Given the complex nature of the tax form (SA100), it is reasonable to assume that a large proportion of self-employed people need some level of support in filling out self-assessment returns. The variety of accountants and tax advisors offering assistance with tax filing suggests that many people in this position seek professional help. The focus

[1] The costs and benefits discussed here refer to both monetary (e.g., the fine from late filing) and psychological (e.g., guilt from filing the incorrect tax return) cost and benefits.

of the research presented here is to examine the effect of customer service on those who file for themselves.

To examine compliance behavior, we vary experimentally the contents of the guidance. Currently, there are two sets of guidance made available by HMRC for self-assessment:

- a long form of guidance based on the paper documentation available as PDFs; and
- a short form guidance based on the tailored information used for each field in the HMRC on-line tax filing system.

as well as the delivery form of the guidance:

- a pop-up box next to the item in an on-line tax return; or
- printed materials.

All the guidance contents we used in the experiment are materials obtained from HMRC in the same way that real taxpayers would have accessed them.

In this experiment, the long form of guidance (LONG) refers to the set of downloadable and printable pdf help sheets available on the Government website[2]. Those help sheets are to be consulted when people choose to file their self-assessment forms by post. The short form of guidance (SHORT) refers to the information contained in the pop-up boxes when people opt to file their forms online (for an illustration of this information and its presentation in the system, refer to appendix A6). The items covered in both forms of guidance are mostly identical. However, there are notable differences in the information provided. The long form guidance is generally more detailed than the short form guidance, while the short form guidance is more succinct and tailored.

The delivery form between the paper and the online guidance also differs. The short form guidance appears as pop-up information boxes right next to the item in the tax form.

With the exogenous variation implemented in the experiment, we are able to disentangle the differential effects of guidance contents and delivery form on voluntary tax compliance.

We found that: 1) On average, over 98% of our subjects file their tax returns incorrectly (about 90% overclaim expenses and so underpay taxes); 2) Further analyses suggest that the non-compliant behaviour is unlikely to be driven by intentional evasion or the subjects' level of laboratory experience; 3) The content of the guidance (whether the guidance is from the long form guidance or the short form guidance) plays a greater role in encouraging tax compliance, while the delivery form of the guidance (whether the same guidance is delivered with the online pop-up information or paper print out) does not seem to have much effect.

[2] https://www.gov.uk/self-assessment-forms-and-helpsheets

The remainder of this report is organized as follows: section 2 gives a brief summary of laboratory experiments on tax compliance. Section 3 discusses the related literature and sets up the theoretical framework; section 4 outlines the experimental design and procedure; section 5 provides a statistical analysis of the data and main findings of the experiment; and section 6 concludes.

2. Background

Laboratory experiments in tax compliance have a long history in the economics literature. Experiments are well suited to the study of tax compliance. To start, the laboratory environment allows the experimenters the control over the environment that subjects face. And the experimenters can also observe the key components of the tax compliance decisions, which are normally unobservable in the field, such as the true level of income. Lastly, laboratory experiments offer a good alternative mechanism to investigate the impact of tax administration policies, while practical, moral or legal issues would prevent a field experiment from being conducted.

Experimental investigations into tax compliance decisions share a number of common features (Alm, 2012). Typically, an experimental subject is given some form of income. They then make decisions on the amount to declare to a tax authority and are liable to pay tax at a given rate. Meanwhile, they face a given probability of being audited. If they are audited and have unpaid taxes, the subjects will be fined, normally based on the level of unpaid tax. As with all experiments in economics, a key feature of the tax experiments is that they are incentive compatible. That is, the rewards a subject can earn relate directly to the task in hand, specifically their tax declaration.

Differences in design arise in a number of ways, often in relation to the specific feature under investigation. Many experiments use a multiple decision design, whereby subjects undertake the tax declaration in multiple rounds. This design has the benefits of allowing more data to be generated per subject and of allowing subjects to learn about the conditions relating to the task. Such a design may however have the effect of alerting a subject to the nature of the treatment, to behaviour based on accumulated earnings in the experiment, or to responses based on the outcome of a previous round. In a similar manner, there is evidence to suggest that the use of an earnings task may have different outcomes depending on other elements of the design (see, e.g., Cherry & Shogren 2008). The results of experimental investigations into tax compliance to date suggest that there is no single design that is the best fit for all purposes, and that designs should be constructed in line with the research question under investigation.

Tax compliance experiments have been performed to examine the effects of a number of different policies. Direct investigations include experiments assessing different forms of an amnesty (Alm, McKee, Beck, 1990), the effectiveness of audit schemes (Collins and Plumlee, 1991; Alm, Cronshaw

and McKee, 1993; Alm and McKee, 2004; Tan and Yim, 2014), the ownership of the tax revenue spending process (Alm, Jackson and McKee, 1993), the impact of publicising information about audits and those audited (Alm, Jackson and McKee, 2009; Coricelli et al, 2010; Fortin, Lacroix and Villeval, 2007; Alm, Bloomquist and McKee, 2015), positive inducements to encourage tax filing and compliance (Alm et al, 2012; Bazart and Pickhardt, 2011) and the effect of pre-population of tax forms (Bruner et al, 2015; Fonseca and Grimshaw, 2015). Recent investigations on the impact of information services provided by the tax authority (Alm et al, 2010; McKee, Siladke and Vossler, 2011; Vossler and McKee, 2013) will be discussed further in the next section.

3. Theoretical Framework

Traditionally, enforcement effort, intensity of audits, and fines and penalties have been regarded as the primary tools for the tax authority to promote voluntary tax compliance. It has come to the attention of tax authorities and researchers in this field that the provision of tax information and assistance services are also of great importance to overall tax morale and compliance. A recent paper by Alm et. al (2010) demonstrated that taxpayers respond positively to service programmes. Specifically, a customer-friendly tax administration increased the average compliance by 27%. The authors propose two main reasons to account for the results. By relieving the burden of complying with tax regulations, the tax authority is able to affect the "soft" tax compliance factors, such as the perception of fairness and trust. Additionally, the tax authority is also able to reduce "hard" tax compliance factors, such as the actual compliance costs of the taxpayers. Another paper by McKee et. al (2011) found additional evidence in support of the arguments above using a laboratory experiment. The authors reported that a helpful information service drastically reduces tax evasion. Yet another paper by Vossler and McKee (2013) looked into the effectiveness of taxpayer service programmes in enhancing tax reporting with the emphasis on the accuracy of tax filing. They found that even providing an imperfect service helps to vastly increase the likelihood to file and filing accuracy.

The discovery of appropriate tax filing information is a costly one to the experimental subjects, in that it takes time and effort to find the appropriate rules and apply them. There may be barriers to the degree of time and money costs subjects are willing to bear to find an appropriate rule. Factors that reduce search costs may lead to greater compliance. Based on this line of reasoning, we predict that holding the delivery form constant, people are less likely to make mistakes with the short form rather than the long form guidance. The short form of the guidance is more succinct and more straightforward. It is reasonable to infer that this short form of the guidance may be more helpful to taxpayers in alleviating the compliance burden. On the other hand, holding the contents of the guidance constant, people may be less likely to make filing mistakes when the guidance is provided in the online pop-up form. When the guidance is delivered through online pop-up information boxes, people can find the relevant

information by simply clicking the pop-up rather than searching through pages of printed paper materials. As a result, the short form of guidance presented in an online pop-up may be the most customer-friendly combination and may encourage greater tax compliance than the long form of guidance printed on paper (which may be the least customer-friendly).

4. Experimental Design and Procedure

Overview

The experiment features a one shot tax filing decision. The primary focus of the research presented here was the investigation of the effect of various treatments on the values reported in a tax return for a moderately complicated taxpayer profile. It has been shown that there are benefits of experimental designs with repeated actions as they allow for learning by subjects, however such benefits are typical for where the decision time is short and where the effect of repetition is desirable or at least not adverse. The design presented here does not have such advantages as there is a requirement for the decision to be complex to force subjects to examine the tax materials they are presented with in order to be able to file a compliant return. This is different to many other laboratory tax experiments, where the filing decision is very simple, often based on one to two values and fields.

In the experiment, subjects are given the profile of a particular taxpayer that they must make a declaration for. Our experiment focuses on a series of expenditures that may or may not form allowable expenses. Uncertainty arises in a number of ways. Firstly, whether or not an item in the profile is allowable, secondly what proportion of a particular expenditure is allowable, and thirdly into which field in the tax form a subject should enter a value deemed allowable. The information services are provided to assist subjects who wish to be compliant to remove these uncertainties in order to complete a compliant tax return.

The information services provided are based on real world documentation from HMRC. Details of the profile used throughout the experiments are given in Table 1, The profile itself is shown in Appendix A. Values are given in experimental currency units (ECU), as is typical in experimental economics. This is primarily to preserve framing effects over different subject pools, as the exchange rate for ECUs to actual cash can be varied to allow for different levels of compensation, but also to frame the experiment with real world values.

Table 1. Tax Profile Details and Correct Allowance

Category	Detail	Amount	Allowable
Income	Fitness classes	25,200	-
Expenses	Car purchase	1,500	-
	Running car (8,000 business miles out of 10,000 total miles) to/from place of work	2,500	-
	Church hall hire	5,760	5,760
	Advertising flyers	175	175
	Gym membership	1,200	-
	Annual household bills (1 day a month working from home)	7,500	246.58
	Mobile phone (15% of total usage was for business purposes)	420	63
Total	Expenses	19,055	6,244.58

From Table 1, we can calculate that the subjects' net balance of income and expenses is 6,145 ECU (subjects were informed of this figure as part of the system). The compliant level of deductions is 6,244.58 ECU, leaving a taxable liability of 18,955.42 ECU. This leads to a compliant tax payment of 3,791.08 ECU, giving a post-tax balance of 2,353.92 ECU. This corresponds to earnings of £7.06 for the completion of a compliant return (for a total of £12.06 once the show up fee is included). The maximum earnings from the task, for the incorrect over-declaration of expenses to set taxable liability to zero, is £18.43 (£23.43 with the inclusion of the show up fee). The minimum level of earnings, from over-declaration of expenses leading to a large fine, is £0 (£5 with the inclusion of the show up fee).

Experimental Procedure

On entry to the lab, subjects were invited to sit at separate booths containing a computer terminal, an envelope, and a piece of paper with software login details. They were asked to leave the materials and the computer alone until the experimental session began. The contents of the envelope varied by

treatment in a manner that will be described in more detail later. At the start of the experimental session, the experimenter would read aloud a set of general lab instructions. These instructions would include thanking subjects for their punctuality and why timely arrival is important to the lab, instruct them that there should be no communication with other subjects or use of other electronic devices and that if there were any questions, subjects should remain seated and raise their hands such that the experimenter could approach and deal with the query. Subjects were also told that the experiment would be conducted on the PC, the software they would use had been pre-loaded and included a calculator, the envelope on their desk contained materials for the profile that they would need for the experiment, and their login details for the computer were on the piece of paper on their desk. Once the general instructions had been read aloud, subjects were asked if they had any questions at that point (none did) and the experiment was started.

The experimental software consisted of a series of components, pictured in Appendix A2. The first component was a set of instructions. The instructions explained the task subjects were required to undertake. The instructions included details of the calculation of tax payable as 20% of the tax liability defined as the difference between declared income and expenses, and of the random chance of audit (set at 50%) and the calculation of fines for unpaid taxes, based on payment of the unpaid tax plus an additional 100% of the unpaid tax. Numerical details were presented for a number of examples of different filing decisions, based on a simple profile rather than the actual profile presented to subjects. The instructions detailed the incentive scheme to participants, in particular the payment of a fixed £5 show-up fee and the conversion of any balance in the experimental system at the end of the session to pounds at a rate of 1000 ECU to £3. The instructions also detailed the presence of assistance with the tax filing decision based on the treatment. This is discussed further in a later section.

Following the instructions, subjects were presented with a set of questions to test their understanding of the experiment. Incorrect responses to the questions were recorded and correct values presented to the subjects so that they could alter their answers and proceed. After successful completion of the test, subjects were presented with a summary of their profile, the actual profile being given in the envelope on their desk. They were then directed to the tax filing component of the software.

The tax filing components consisted of three screens. The first screen allowed subjects to enter values for a number of expenses fields. The value of the subject's income, as shown on the profile, was pre-populated and un-editable. The second tax filing screen showed participants their tax calculation, based on the value of expenses they had entered and the default income level. Subjects were invited to either alter their tax declaration, which would return them to the previous submitted screen, or to submit their tax return.

Upon submission of their tax return, subjects were shown the third and final page of the tax filing component of the system. On this page subjects would be informed of their tax payment, whether they had been selected for audit, and in the case of any audit, what the result of the audit was and any additional taxes or penalties to be paid. Finally, subjects were directed to complete an on-line questionnaire as part of the software that asked them questions about their motivations for choices in the experiment as well as gathering some demographic details.

Experimental Treatments

Original Treatments

The initial set of experiments focused on three treatments in terms of the effect on compliance of assistance materials without the use of phone or on-line help. The treatments were decomposed into two parts. The first part addressed the content of the materials, in terms of the form of guidance. As mentioned in the introduction section, the first of the two sets of HMRC documentation that were used was sourced from the long form of HMRC printed materials and is referred to as LONG. The second was sourced from short form of HMRC guidance within the HMRC self-assessment tax filing website as is referred to as SHORT. The second component of the treatment addresses the delivery form of the assistance. Assistance was either provided to subjects in print, referred to as PAPER, or provided through the pop-up information box, referred to as ONLINE. The three treatments detailed in table 2 were undertaken in the first stage.

Table 2. Stage 1 Treatments

Treatment Name	Description
LONG_PAPER	HMRC long form guidance delivered on paper
LONG_ONLINE	HMRC long form guidance delivered as online pop-up box
SHORT_ONLINE	HMRC short form guidance delivered as online pop-up box

From Table 2 above, it can be seen that no SHORT_PAPER treatment was conducted. Although it was felt that while this treatment may have added some insight, the results that would have been obtained would probably not be worth the cost of running the treatment. A further comment on this rationale is presented after the results. The screenshot (see appendix A6) shows the display of information in SHORT_ONLINE treatment.

Additional Treatments with A Support Line

Two additional treatments were also run where subjects were offered the opportunity for additional guidance through a support line. In all cases the SHORT_ONLINE guidance was used. In one set of treatments the laboratory PCs were pre-installed with Skype and a link to make a call to a FEELE tax

advisor. Subjects were told in the instructions and on the tax form that they could make a voice call through Skype if they required further assistance to complete their tax return. In a further set of sessions, telephones were installed in the laboratory with a fixed number to dial. Subjects were again told they could use the phone to gain additional guidance in the instructions and on the tax form. They were also given a note with the direct number to call in case they were unfamiliar with the direct call mechanism. Students who had previously undertaken the experiment in stage 1 were contacted and asked if they would wish to serve as paid advisors in the experiment. 10 advisors were recruited and attended a training session where they were given a document detailing the process of how to handle a call from a subject. Having worked through the process, advisors then undertook a series of practice calls with one another to complete their testing. The advisors were then recruited for each of the stage 2 sessions and positioned in another office away from the lab with the appropriate technology to respond to calls for guidance. The scripts as well as the standard answers used by our advisors are included in the Appendix (A12- A13).

Experimental Sessions

Sessions were conducted in the FEELE Lab at the University of Exeter. For the majority of experiment, participants were all undergraduate students at the university. A final stage 2 session was run using professional services staff recruited from the university. In a typical session, there is on average 20 (for original treatments) or 10 (for the additional treatments) subjects per session. In total, 266 subjects participated in this experiment.

5. Results

Main Results

Table 3 below summarizes the overall tax filing error rate by different treatments for stage 1. The error rate here is calculated as the percentage of the population who fail to declare the correct amount of allowable expenses (the correct amounts of allowable expenses for each of the items are outlined in Table 1). We include both underpayment of taxes (claiming more expenses or making favourable errors) and overpayment of taxes (claiming lower expenses or making unfavourable errors) in calculating the overall error rate. Across all treatments, around 98% of the population make mistakes in their tax filing. And most people made a mistake on the positive side, i.e., they over-claim expenses and underpay taxes. However, there is still around 9% of the population who under-claim expenses and overpay taxes. Table 4 and 5 details the magnitude of those errors.

Table 3. Overall error rate by treatment

Treatment	Obs	Overall error rate	% of population who overpay taxes
SHORT_ONLINE	79	97%	10%
LONG_PAPER	78	100%	12%
LONG_ONLINE	79	97%	6%

Table 4 below shows that the average amount of underpayment accounts for about 27% of the total taxes to pay. In comparison, the average amount of overpayment (shown in Table 5) amounts to around 17% of the total taxes to pay. While some subjects (9.5% of the sample) under-claim on the amount of expenses they are entitled to (and thereby overpay their tax due), the majority of subjects over-claim on the amount of expenses they are eligible for, leading to a net under-payment of tax due.

Table 4. Underpayment by Treatment

Treatment	Obs.	Average amount of underpayment	As a percentage of taxes to pay
SHORT_ONLINE	69	937.9	24.7%
LONG_PAPER	69	1113.9	29.4%
LONG_ONLINE	72	1138.6	30%

Table 5. Overpayment by Treatment

Treatment	Obs.	Average amount of overpayment	As a percentage of tax to pay
SHORT_ONLINE	8	554.5	14.6%
LONG_PAPER	9	795.1	21%
LONG_ONLINE	5	560.6	14.8%

Next we compare the average tax underpayment among the three treatments. As shown in Figure 1, people tend to underpay by the least amount in the SHORT_ONLINE treatment and by the largest amount in the LONG_ONLINE treatment. The difference between these two values is statistically significant. This suggests that it is the content of the short form guidance that causes a higher level of

compliance since we are holding the delivery form constant. Although on average people underpay taxes less in the LONG_PAPER than in the LONG_ONLINE treatment, the difference is not statistically significant. This implies that whether the information of the guidance is delivered using the pop-up information boxes or printed paper does not seem to cause a significant change in compliance behaviour. The OLS regression analysis also confirms the above findings.

The regression results are reported in table 6 below. The dependent variable is the tax filing error (it is defined as the difference between the subjects' claimed allowances and the correct amount). The control group for the regressions is the LONG_ONLINE. The regressor SHORT_ONLINE is a dummy variable, where it equals to 1 if it is the SHORT_ONLINE treatment and 0 otherwise. Likewise, LONG_PAPER is also a dummy variable, where it equals to 1 if it is the LONG_PAPER treatment and 0 otherwise. From (1), we can see that people in the SHORT_ONLINE treatment claim 239 ECU (or 6%) less than people in the LONG_ONLINE treatment. This is a rather large effect, especially taking into account the number of people in the treatment. It suggests that subjects in SHORT_ONLINE treatment are on average more compliant than those in LONG_ONLINE treatment. In comparison, how the information is delivered also has some positive impact on tax compliance, however, the effect is fairly small and insignificant. From (2), the SHORT_ONLINE treatment effect persist while controlling for gender and age of the subjects. We do not observe any effect of gender or age on filing errors.

Table 6. OLS On Tax Filing Errors With Treatment Effects

	(1)	(2)
SHORT_ONLINE	239.177*	283.604**
	(140.63)	(140.96)
LONG_PAPER	108.613	96.203
	(155.07)	(159.47)
Male		-48.739
		(121.963)
Age		44.485
		(30.35)
Constant	-1002.215***	-1819.429***
	(103.10)	(624.25)
Observations	236	229

Note: Robust standard errors are reported in parenthesis. * indicates significance level at 10%, ** at 5%, *** at 1%.

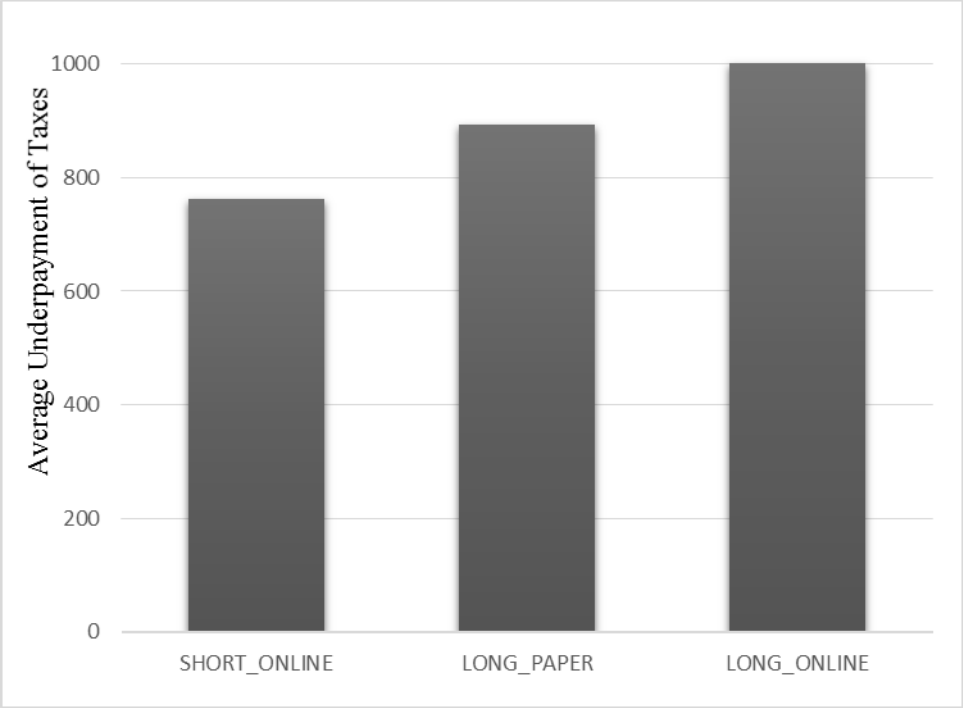

Figure 1. Average Underpayment of Taxes by Treatment

We also conducted similar analyses on the data from the additional treatments with support lines. We find that people in SHORT_ONLINE treatment with support lines behave similar to the original SHORT_ONLINE treatment. The main explanation is that only 10% (3 out of 30) subjects made use of the support line. From the post experimental survey, over 65% of the subjects attribute their reasons for not calling to sufficient information provided.

6. Discussion and Conclusions

Here we report the conclusions from the experimental investigation into the effect of HMRC taxpayer assistance on tax compliance. We varied both the contents and the delivery form of the guidance for self-assessment form (SA 100). We found that the contents of the guidance played a greater role in bolstering tax compliance than the form of delivery. In particular, we found that participants using the short form guidance under-paid tax by 6% less than those with the long form guidance, while holding the delivery form constant. The delivery form of the guidance was found to have little effect when holding the guidance contents the same.

Our result that appropriate guidance can increase the degree of tax compliance is in-line with previous studies (as detailed in section 2) into the effect of tax assistance on compliance behaviour. Whether our results would replicate with real tax payers is still an open question for future research to address. However, we argue that the results may be most applicable to the set of taxpayers who are new to the self-assessment system.

The non-compliance behaviours we observed in the experiment are unlikely to be driven by the experimental experience of the subjects or intentional evasion. 71% of our subjects have participated in the laboratory experiments less than three times and none of them have participated in a tax related experiment before. As for the unintentional tax evasion, one piece of subjective evidence is from a post-experimental survey. We asked the subjects about how they approach this experiment, and 58% of the subjects indicated that "I want to get my return right". Another 30% said that "I don't mind small errors". Only 12% of the subjects say that "I did not mind having errors on my form if it benefitted me financially." A closer look at the error patterns suggests that the majority of the students put in effort and tried to calculate the correct declaration values (For detailed analyses on the error pattern, please refer to Appendix B). However, despite their efforts, they failed to get the tax return right. On the other hand, over 65% of our sample thought that the guidance provided sufficient information for them to complete the task (from the additional treatments). It may be of interest to examine further the gap between the high error rate and the level of overconfidence among taxpayers. Additionally, questions remain as to the characteristics of the contents that are the driving force of the behavioural change. Questions remain as to what makes up effective guidance and more detailed studies should be carried out with those questions in mind.

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Vossler, Christian A. and McKee, Michael, 2013, "*Efficient tax reporting: The effects of taxpayer information services"*, working paper, Appalachian State University

Appendix

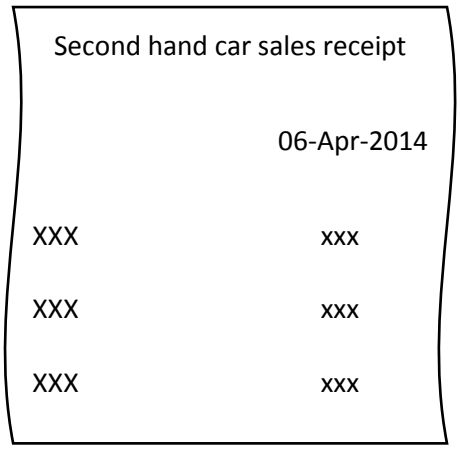
A1. Tax profile for the experiment

In this experiment you will take the role of Tom, a self-employed fitness instructor. During this tax year, you have earned **ECU 25,200** of income from running fitness classes. You are in the process of completing your tax return form, and need to decide what expenses to claim as tax allowances.

Your files show the following for this tax year.

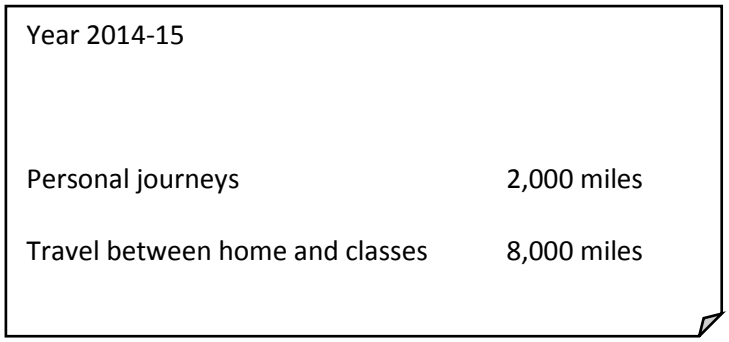
1. You bought a second-hand car to help you get to and from your classes.

   Here is the receipt for the purchase of your car and a summary of mileage, fuel, servicing expenses, and insurance costs.


Second hand car sales receipt

06-Apr-2014

XXX	xxx
XXX	xxx
XXX	xxx


Year 2014-15

Personal journeys	2,000 miles
Travel between home and classes	8,000 miles

2. You run your fitness classes every evening in a local church hall, which you paid **ECU 5,760** to hire.
3. You paid **ECU 175** for printing flyers to advertise your fitness classes.
4. You paid **ECU 1,200** for a gym membership to stay fit.
5. Your household bills amounted to **ECU 7,500** for annual rent, gas, electricity, water rates and council tax. You spend about 1 day a month (12 days a year) working from your home (a studio flat) designing posters and leaflets about the classes, calling new members and dealing with the finances and administration.
6. Your mobile phone bills were **ECU 420**, only 15% of total usage was for business purposes.

A2.

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FEELE Laboratory

Instructions

Experiment Overview

Thank you for taking the time to join us today. You will be participating in a **tax reporting simulation** exercise. Please read these instructions carefully, as part of your payment will depend on the decisions you make.

You will take the role of a **self-employed** individual. You will be given information on the **income** you have earned during the tax year, and records of all **expenses** relating to your self-employment activities. The tax year being used in the experiment runs from 6 April 2014 to 5 April 2015.

Your cash balance at the start of the experiment can be calculated as the difference between your income and your expenses:

- **Your Initial Cash Balance = Your Income - Your Expenses**

You will then face a tax reporting decision. On the tax return form, you will decide which items of expenditure, and the amount to which, to claim as **tax allowances**. Tax allowances are expenses that can be deduced from your income to calculate you **taxable profit**:

- **Your Taxable Profit = Your Income - Your Tax Allowances**

You will not be told what the correct amount of tax allowances is. Instead, you will be given a set of **guidance notes** to help you work out which items of your expenditure can be claimed as tax allowances.

Your level of tax payable will be calculated for you by the tax system, based on the amounts that you have declared on the tax return form:

- **Your Tax Payable = 20% * Your Taxable Profit**

Assistance

If you have any questions about how to fill in the tax form, you may call for assistance using the phone provided. Pressing the top left (only) pre-programmed number on the handset will place a call to a tax advisor. Your login slip should also show the same 4 digit help line number if you would prefer to dial it.

Audit and Penalty Regime

Audit is the process whereby the computer checks the values claimed for tax allowances after a tax return has been submitted. Any values submitted in the tax return that are found to be not allowable will be discovered by the audit process. The people chosen for audit will be selected randomly. You have a **50%** chance of your tax return being selected for audit. Audits are determined completely at random and do not depend on your decisions or decisions of others.

If you are **not audited**, your earnings are **your initial cash balance** minus the **tax payable**:

- **Your Final Cash Balance = Your Initial Cash Balance - Tax Payable**

If you are **audited**, your earnings are adjusted as follows:

- If the amount of deductions you claimed was **more** than what you were allowed, then you must pay taxes on the difference (**unpaid tax**). In addition, you must pay an additional **penalty** equal to 100% of the amount of **unpaid tax**.
- If you claimed **less** in deductions than what you were allowed, you will **not** be refunded. In other words, the audit will not help you.

If any unpaid tax is discovered, your final cash balance will be calculated as:

- **Your Final Cash Balance = Your Initial Cash Balance - Tax Payable - Unpaid Tax Due - Penalty on Unpaid Tax**

If your total liability after taxes and fines is greater than your initial cash balance then your final cash balance will be zero.

Post-Experiment Questionnaire

Upon completion of the experiment you will be presented with a short questionnaire. Please answer all questions to complete the experiment. The final screen after the questionnaire will state "You have now completed the experiment".

Calculation of Payment

All items in the profile you will be given will be denominated in Experimental Currency Units (ECU). All values should be entered in whole units, there is no need for decimals. For each 1,000 ECU you have as **Your Final Cash Balance** in the experiment, you will be paid £3.00. In addition, you will receive a fixed £5.00 for participating in today's session.

In the following screen we will go through an example.

Next

Please do not use the back button on your browser during the experiment

Logout

A3.

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FEELE Laboratory

Instructions - 2

Example

Let's assume you own a grocery store and your income for the last tax year was ECU 25,000. You have the following expenses:

1. Cost of goods bought for resale: ECU 5,000
2. Rent and utility bills for the shop: ECU 8,000
3. Legal cost for acquiring new premises: ECU 5,000

According to the tax rules, you are only allowed to claim tax allowances for items 1) and 2), but not item 3). The table below shows a few hypothetical examples of how you may choose to complete your tax return and how your final cash balance will be calculated.

The bottom line in the table shows the final payment you're left with, depending on whether you're randomly selected for an audit or not.

Income	25,000			
Allowable Expenses	13,000			
	Example 1 Under-Claim Tax Allowance	**Example 2 Declare Accurately**	**Example 3 Over-Claim Tax Allowance**	
Declared Expenses	5,000	13,000	18,000	
Taxable Profit	20,000	12,000	7,000	
Tax Paid	4,000	2,400	1,400	
Tax Return Audited?	Yes or No	Yes or No	Yes	No
Unpaid Tax Due	0	0	1,000	0
Penalty on Unpaid Tax	0	0	1,000	0
Payment (ECU)	3,000	4,600	3,600	5,600
Payment (£)	9.00	13.80	10.80	16.80

Previous Next

Please do not use the back button on your browser during the experiment

Logout

A4.

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Quiz

Please answer all of the following questions.

1	What is the tax rate applicable in the experiment?	
2	What is the probability your tax return will be audited?	
3	What is the penalty rate applied to any unpaid tax?	
4	Will declaring a larger value for your expenses will lead to you paying more or less tax?	
5	What level of tax will be payable on an income of ECU 20,000, with expenditures of ECU 5,000 and allowable expenses of 4,000?	
6	What would your payment be if Your Final Cash Balance is ECU 2,500 (ignore any show up fee)?	£
7	Are you able to able to contact a tax advisor during the experiment?	

Previous Next

Please do not use the back button on your browser during the experiment

Logout

A5.

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Profile

The profile you have been given shows **your income** to be 25,200 ECU.

The profile shows **your expenditure** totalling 19,055 ECU.

That means **your initial cash balance**, before payment of tax, is 6,145 ECU.

Your payment for the experiment with be based on your initial cash position, 6,145 ECU, minus any taxes or fines paid in relation to you tax declaration.

You should now take a moment to familiarise yourself with the types and amounts of expenditures you have been given in the printout of your profile for the experiment.

Once you are ready, you may now start the tax return component of the experiment by clicking on the button below.

Next

Please do not use the back button on your browser during the experiment

Logout

A6.

FEELE Tax Return

Online Services

Help

Self-Employment Tax Return

Business Income

The information to help you complete this section can be found in your profit or loss accounts, records of business receipts and business expenses.

Box 1	Business description	Fitness Instructor
Box 2	Turnover - takings, fees, sales or money earned by your business	25200

Tax allowances

Box 3	Cost of goods bought for re-sale or goods used	
Box 4	Car, van and travel tax allowances after private use proportion	
Box 5	Wages, salaries and other staff costs	
Box 6	Rent, rates, power and insurance costs	
Box 7	Repairs and renewals of property and equipment	
Box 8	Accountancy, legal and other professional fees	
Box 9	Interest and bank and credit card etc. financial charges	
Box 10	Phone, fax, stationary and other office costs	
Box 11	Other allowable business allowances	
Box 12	**Allowable Expenses** total of boxes 3-11	0
Box 13	Capital allowance	

Include any:

- payments made towards repairs and maintenance of business premises and equipment
- renewals of small tools and items of equipment

Don't include:

- repairs of non-business parts of premises or equipment
- costs of improving or altering premises and equipment

Summary for business

Box 14	**Net taxable profit**	25200

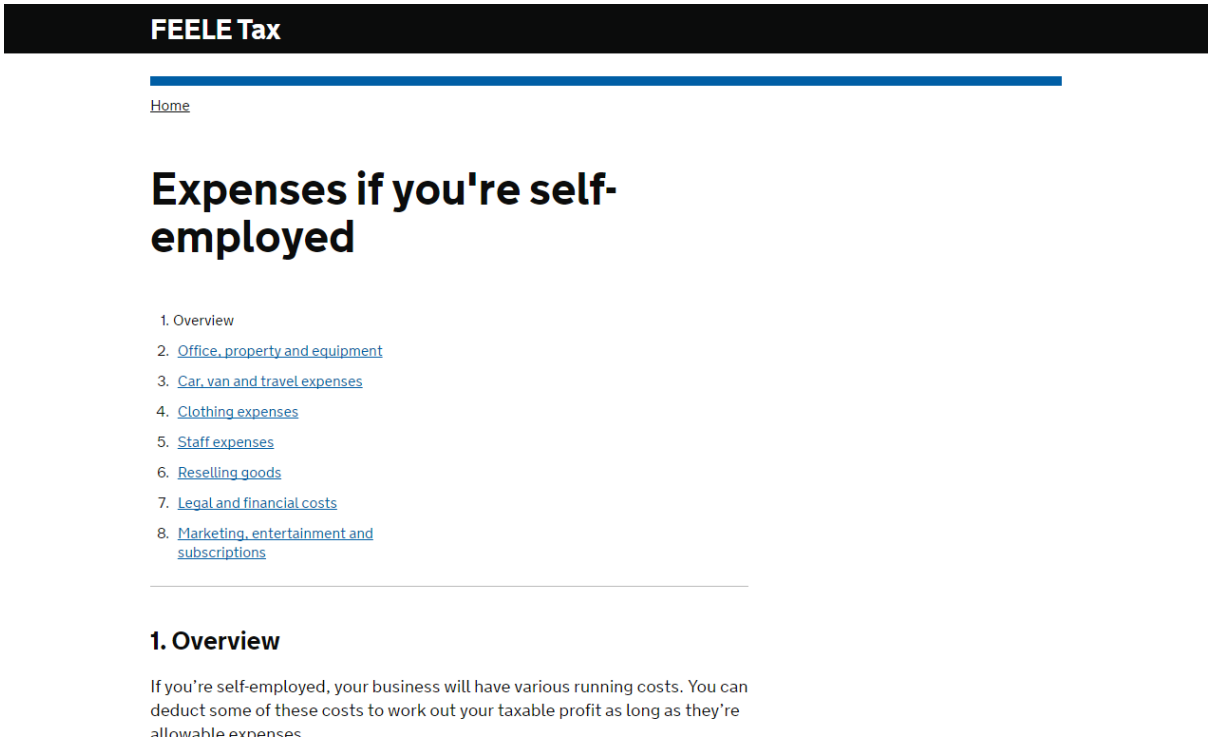
Next

For information and guidance on how to calculate allowable expenses, please see Expenses if you are self-employed (opens up on separate page).

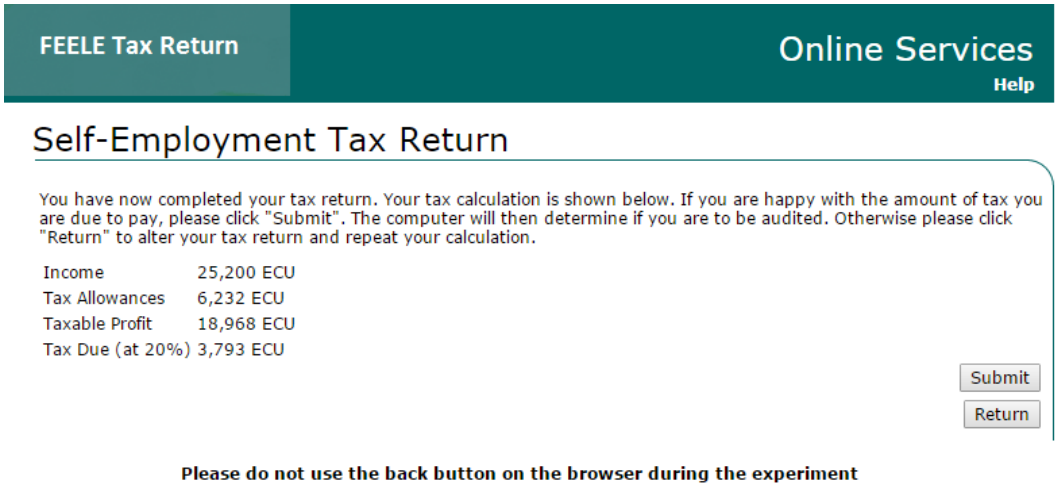
You may also call a tax advisor assistance using the phone provided. You may use the top-left (only) pre-programmed number on the handset or the (same) 4 digit number on your login sheet to place a call to a tax advisor.

Please do not use the back button on the browser during the experiment

A7.

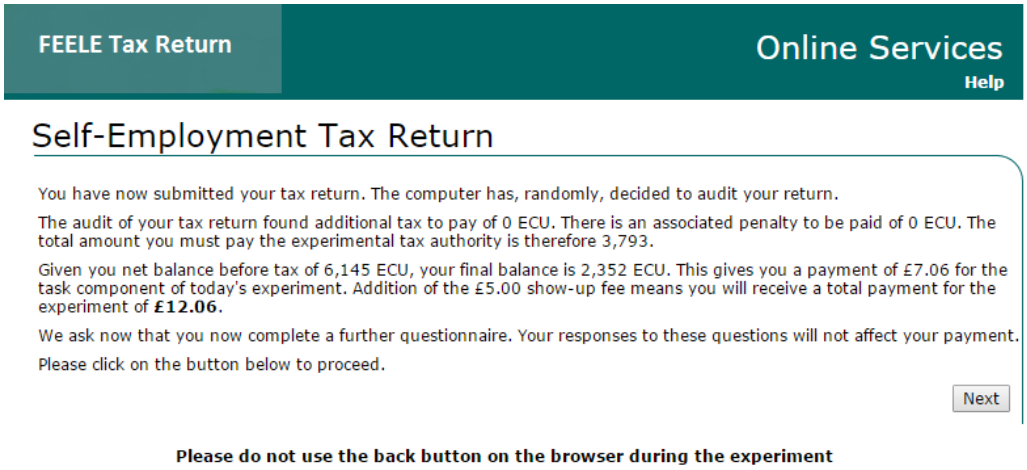


A8.

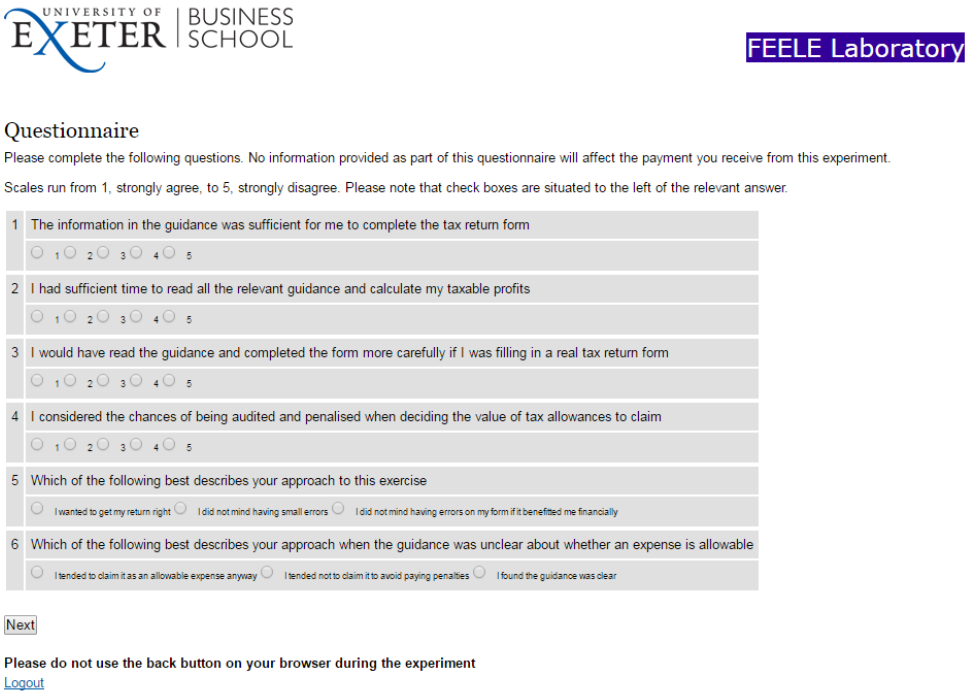


Please do not use the back button on the browser during the experiment

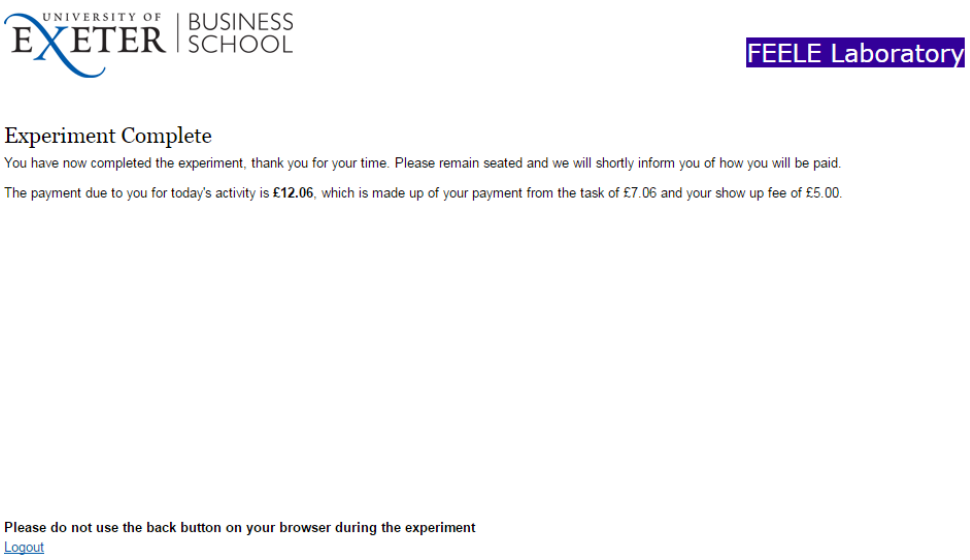
A9.


FEELE Tax Return
Online Services
Help
Self-Employment Tax Return
You have now submitted your tax return. The computer has, randomly, decided to audit your return.
The audit of your tax return found additional tax to pay of 0 ECU. There is an associated penalty to be paid of 0 ECU. The total amount you must pay the experimental tax authority is therefore 3,793.
Given you net balance before tax of 6,145 ECU, your final balance is 2,352 ECU. This gives you a payment of £7.06 for the task component of today's experiment. Addition of the £5.00 show-up fee means you will receive a total payment for the experiment of £12.06.
We ask now that you now complete a further questionnaire. Your responses to these questions will not affect your payment.
Please click on the button below to proceed.
Next
Please do not use the back button on the browser during the experiment

A10.


UNIVERSITY OF EXETER BUSINESS SCHOOL
FEELE Laboratory
Questionnaire
Please complete the following questions. No information provided as part of this questionnaire will affect the payment you receive from this experiment.
Scales run from 1, strongly agree, to 5, strongly disagree. Please note that check boxes are situated to the left of the relevant answer.
1 The information in the guidance was sufficient for me to complete the tax return form
1 2 3 4 5
2 I had sufficient time to read all the relevant guidance and calculate my taxable profits
1 2 3 4 5
3 I would have read the guidance and completed the form more carefully if I was filling in a real tax return form
1 2 3 4 5
4 I considered the chances of being audited and penalised when deciding the value of tax allowances to claim
1 2 3 4 5
5 Which of the following best describes your approach to this exercise
I wanted to get my return right
I did not mind having small errors
I did not mind having errors on my form if it benefitted me financially
6 Which of the following best describes your approach when the guidance was unclear about whether an expense is allowable
I tended to claim it as an allowable expense anyway
I tended not to claim it to avoid paying penalties
I found the guidance was clear
Next
Please do not use the back button on your browser during the experiment
Logout

A11.



A12. Scripts for phone advisor

Lab Experiment - Phone Support Script Example:

Call Advisor: "Good morning/afternoon/evening, you've reached the experimental tax authority helpline, my name is {INSERT NAME} and I'll be your call advisor today. Please can I take your experimental tax authority ID"

Participant: Caller to provide unique participant ID.

Call Advisor: "Thank you. I'd like to ask you a couple of questions to work out how I can help you today. Please can you tell me what expense item or items you are calling about? For example, advertisement printing expenses."

Participant: Caller to provide item(s) they would like advice about.

To ensure the advisor has interpreted the caller's response correctly (particularly important if they have given a variant on those listed on the prepared list):

Call Advisor: "To confirm, your query relates to {INSERT RELEVANT EXPENSE(S)}"

Participant: Caller to confirm which item(s) their query relates to.

Call Advisor: "Thank you. Now I'd like you to tell me what the nature of your query is."

If the caller's response is unclear the advisor should ask:

Call Advisor: “Please can you tell me if your query relates to the eligibility of the expense item as a tax allowance, how to calculate the amount allowable, or about how to complete the form”

Participant: Caller to confirm nature of their query.

To ensure the advisor has interpreted the caller’s response correctly:

Call Advisor: “To confirm, your query relates to {INSERT RELEVANT QUESTION, (for example how to calculate the allowable amount of telephone expense)}”

Participant: Caller to confirm the nature of their query.

If the caller provides a query which does not relate to any of the items on the prepared list the advisor should say:

Call Advisor: “The experimental tax authority helpline is only able to provide advice about your expenses to help you complete your experimental tax authority tax return.”

If the caller persists with irrelevant questions the advisor should say:

Call Advisor: “I’m sorry I’m not able to help with your question today”.

The call advisor should ensure the caller has asked all of their questions before they end the call:

Call Advisor: “Is there anything else I can help you with today?

If the participant replies no, then the call advisor should say:

Call Advisor: “Thank you for calling the experimental tax authority helpline today, goodbye” before ending the call.

A.13 Standardized answer for the phone support

Lab Experiment Telephone Support – Q & A Examples

Item	Question: Expense Allowable or Not Allowable	Question - How to Calculate: Calculation Principles	Question – How to Calculate: Calculation Based on Scenario if Deemed Allowable by Participant	Question: If expense claimed what box should it go in?
Gym Membership	Expenses which have been incurred wholly and exclusively for the purposes of the trade are allowable. Expenses incurred which have a dual purpose are not an allowable deduction. Your gym membership is therefore not an allowable expense.	No calculation required	No calculation required	None - Expenses which have been incurred wholly and exclusively for the purposes of the trade are allowable. Expenses incurred which have a dual purpose are not an allowable deduction. Your gym membership is therefore not an allowable expense.
Church Hall Hire	Expenses which have been incurred wholly and exclusively for the purposes of the trade are allowable. You can therefore claim business premises rental costs as an allowable expense.	No calculation required	No calculation required	Rent, rates, power and insurance costs
Flyers	Expenses which have been incurred wholly and exclusively for the purposes of the trade are allowable. The cost of advertising your business is an allowable business expense.	No calculation required	No calculation required	Phone, fax, stationery and other office costs

Mobile Phone	Expenses which have been incurred wholly and exclusively for the purposes of the trade are allowable. Where a proportion of the expense has been incurred wholly and exclusively for the purposes of the trade this proportion is allowable. You can claim the cost of business calls as an allowable deduction. You cannot claim a deduction for non-business or private use proportion of your phone costs.	Business proportion of the total cost of mobile phone bills	£420 x 15% = £63	Phone, fax, stationery and other office costs
Household Bills	You can claim expenses for using your home as an office. You are able to claim a proportion of your costs for things like: heating, electricity, Council Tax, mortgage interest or rent. You'll need to find a reasonable method of dividing your costs, for example, by the number of rooms you use for business or the amount of time you spend working from home. You can avoid using complex calculations to work out your business expenses by using simplified expenses. Simplified expenses are flat rates that can be used for working from home. You can only use	Reasonable Apportionment of Business Usage: Total household bills x (number of days per year used as home office / total number of days in year 365 days)	£7500 x (12/365) = £247	Rent, rates, power and insurance costs

	simplified expenses if you work for 25 hours or more a month from home, therefore this option is not available to you.			
Car – Running Costs	Any non-business/ private use proportion of motoring costs and travel between home and work is not allowable.	You can divide your costs using your allowable business mileage as a proportion of your total mileage. The cost of buying your car is not an allowable expense, but you can claim a capital allowance. Business usage apportionment: Total running costs x (business miles / total miles) OR You can avoid using complex calculations to work out your business expenses by using simplified expenses. Simplified expenses are flat rates that can be used for business costs from vehicles. You can calculate your business vehicle costs using a flat rate for mileage instead of the	Example based on participant assuming incorrectly that 8000 miles are allowable business miles. £2,500 x 8,000/10,000 = £2,000 OR 8,000 @ 45p = £3,600	Car, van and travel expenses

		actual costs of buying and running your vehicle, for example, insurance, repairs, servicing, fuel. The flat rate for cars is 45p per mile for the first 10,000 miles and 25p per mile after 10,000. If you choose to use the flat rate you cannot claim the business proportion of vehicle costs or a capital allowance for the vehicle. Choice to use flat rate expenses business miles @ 45p per mile first 10,000 miles, 25p after 10,000 miles		
Car – Purchase Cost	The cost of buying your car is not an allowable expense, but you can claim a capital allowance if you have allowable business mileage unless you have chosen to use the flat rate for vehicle costs. If you use the car for both business and private purposes, you must reduce the allowance you claim by the private use proportion. You can calculate your allowable proportion by dividing your allowable	Cars do not quality for the annual investment allowance, however you can claim a percentage of the cost of the car. The percentage you can claim is based on its level of CO2 emissions (100% < 95g/km, 18% 96g/km-130g/km, 8% > 130g/km). Capital Allowance Calculated:	Example based on participant assuming incorrectly that 8000 miles are allowable business miles. £1,500 x 8% x (8,000/10,000) = £96	Capital allowance

	business mileage by your total mileage.	Purchase cost x 8% special rate pool allowance as CO2 emissions more than 130g/km x business proportion of car use		

Appendix B

Further Analyses On Mistakes Made by the Subjects

Analysis of specific fields yields interesting results. Subjects appear to have taken time to complete the information given to them in the profile and the tax guidance, but not fully able to file a correct tax report. As a first example, the correct value to enter for phone costs was 238 ECU, based on the fact that the flyer costs of 175 were appropriate for this category as was 15% of the 420 ECU mobile phone bill (63 ECU). Figure 2 shows that the majority of values entered reflect these numbers in some way.

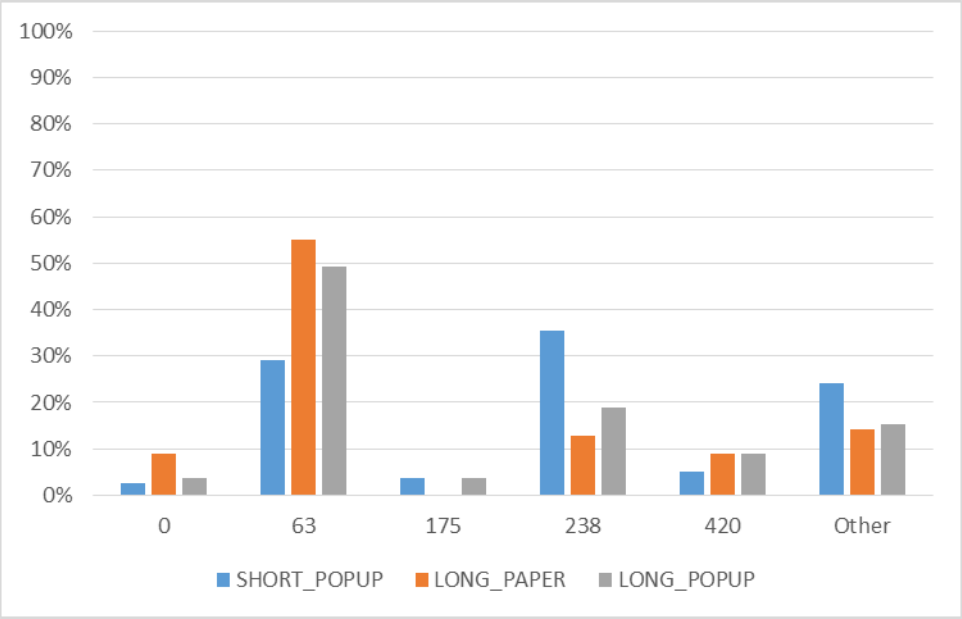


Figure 2. Proportion of subjects entering particular values for Phone Costs

More subjects put 63 as the value in the LONG based guidance treatments than in the SHORT guidance based treatment, where the response 238 was more popular suggesting that the correct field to enter the flyer costs into was more clear in the SHORT guidance. An offsetting value of 175 for the flyers can clearly be seen in the filings made for Other Expenses, shown in Figure 3.

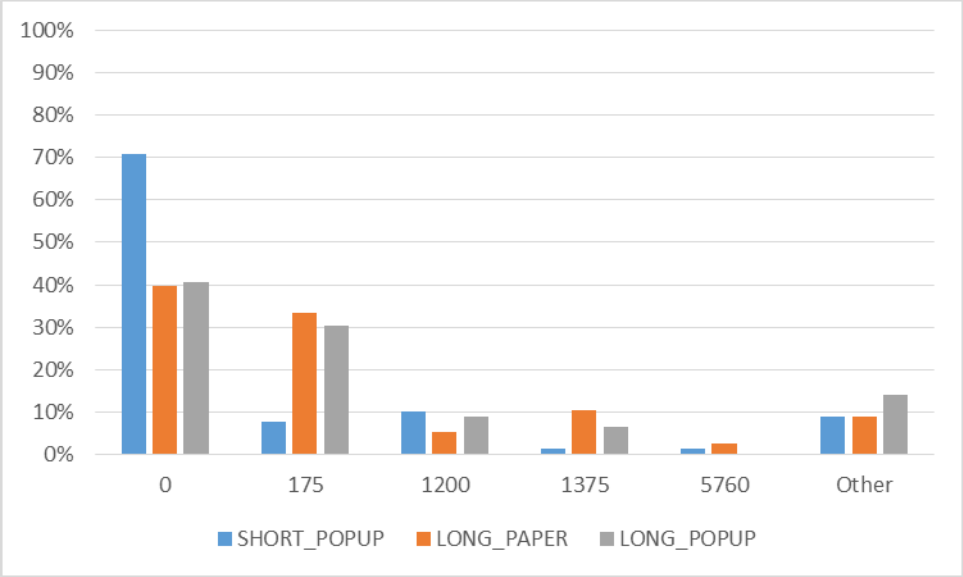


Figure 3. Proportion of subjects entering particular values for Other Expenses

A third example can be seen for values filed under rent. The correct value for this category was 6007 ECU, comprised of 5760 ECU for hire of the church hall and (12/365)*7500 (247) as the appropriate value for use of the home for business purposes. Figure 4 shows the proportions of subjects filing particular values for rent by treatment.

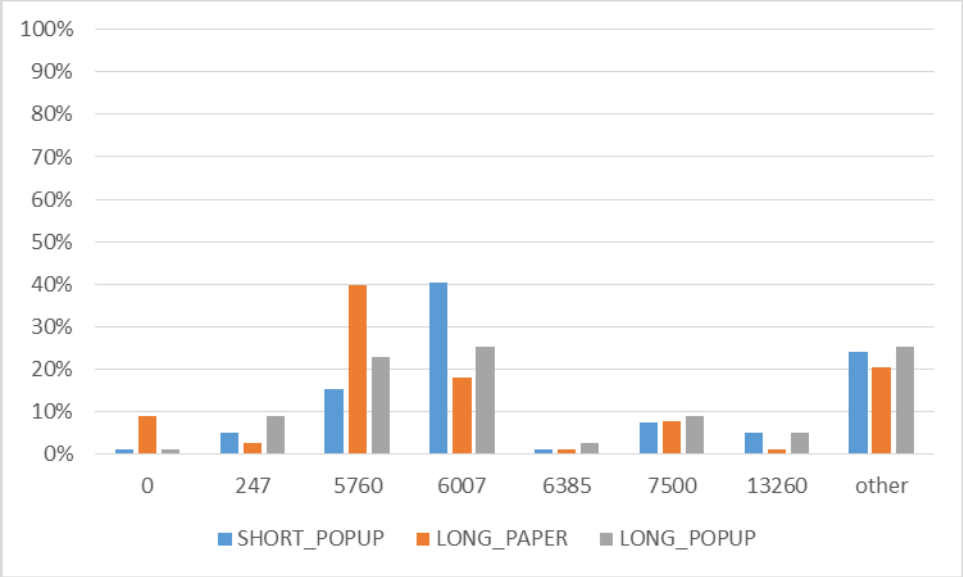


Figure 4. Proportion of subjects entering particular values for Rent

The pattern in Figure 4 for rent is similar to that shown in Figure 2 for phone costs in that the majority of values entered reflect a combination of the raw values and calculations, though some are wildly wrong, such as the value 13,260 which simply sums the value for church hall hire with the household rent bill. The higher proportion filing the correct value 6,007 in the SHORT guidance based treatment than for the LONG guidance treatment suggests that the mechanism for handling household rent was

more apparent in the SHORT guidance. The figure of 6385 arises as subjects (incorrectly) divide the household rent (7500) by 12 and add that to the 5760 figure for church hall hire.

A final example is shown in Figure 5 for travel expenses. The actual correct value of travel expenses was zero as the use of the car to drive to and from the same place of work does not qualify as a taxable expense. The values reported in this field are, however, informative of subject behaviour. Subjects were informed of a purchase of a car for 1,500 ECU and running costs of 2,500 ECU, 80% of which were for business purposed. The range of values filed include 2000 ECU (80% of running costs), 2,500 (the full running costs); 3,500 (80% of running costs plus purchase cost); 3,600 from application of simplified costs; 4000 (total cost of car); 6,100 from simplified costs plus running costs.

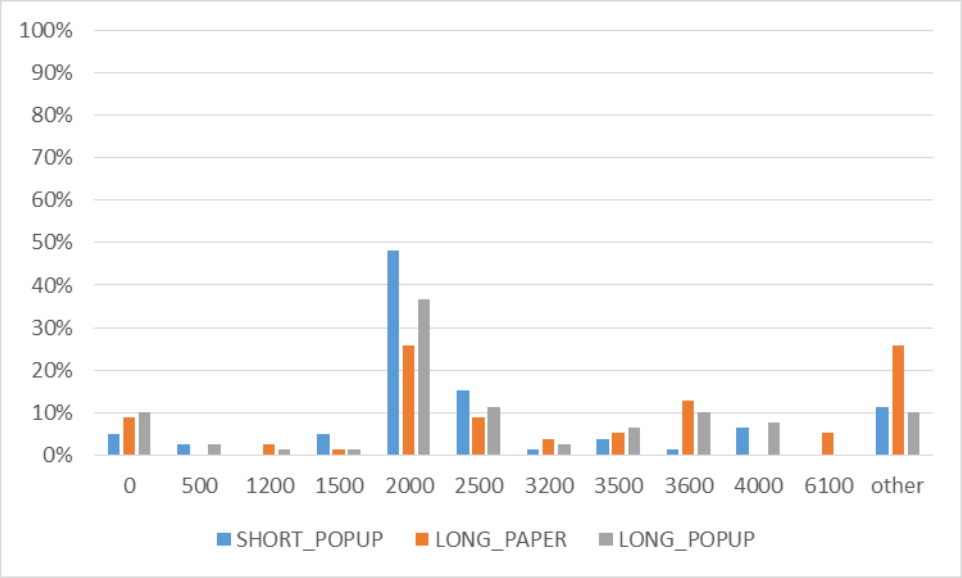


Figure 5. Proportion of subjects entering particular values for Travel Expenses

Once again this figure suggests that subjects were working with the profile and the tax guidance but not quite able to get to the correct result. It is notable that in all cases the values used typically skew to over-claiming on expenses, as reflected in the previous results. It should also be noted however that this is designed into the profile, as there are items that subjects are required to exclude and therefore we cannot say from the results here that such over-claiming would apply more generally.

DP Ref: 11664-001


TARC
Tax Administration
Research Centre


NAO
National Audit Office