IOE Mobile UI Design Framework for Survey Operations Experiments

**Experiment 11: Placement of logout button**

All conditions presented the same question:

|  |
| --- |
| 1. Which one of the following is the fruit you would be most likely to buy if you had to choose one?
* Apples
* Oranges
* Bananas
* Mangos
* Kiwis
 |
| 1. Which one of the following is the vegetable you would be most likely to buy if you had to choose one?
* Carrots
* Asparagus
* Corn
* Broccoli
* Onion
 |

**Experiment 12: Label of logout button**

All conditions presented the same question:

|  |
| --- |
| 1. Which one of the following is the fruit you would be most likely to buy if you had to choose one?
* Apples
* Oranges
* Bananas
* Mangos
* Kiwis
 |
| 1. Which one of the following is the vegetable you would be most likely to buy if you had to choose one?
* Carrots
* Asparagus
* Corn
* Broccoli
* Onion
 |

**Experiment 13: Alignment of text**

|  |
| --- |
| Programming instruction: Alternate presentation order of passages and alternate passage alignment to be center or left alignment.[Instructions for participant: In this experiment, you’ll be reading two short passages and answering questions about what you have read. Please make sure to read as quickly *and* as accurately as possible for comprehension. Following each passage, you will be presented with a few questions based on what you have just read. Importantly, you will not be able to refer back to the passage when answering the questions, so please consider reading accuracy and not just speed.] |
| **Passage #1** | **Passage #2** |
| In a small town a greengrocer had opened a shop that was located above a deep cellar. Every night, mice came in droves out of this cellar into the shop. They ate apples and pears, grapes and nuts and did not spare the vegetables and potatoes either. No goods that were in the shop were safe from the small intrusive rodents between midnight and sunrise. As long as there was noise in the streets at night and cars were driving by, the mice still stayed quietly in the cellar. But as soon as the old clock on the town hall had struck midnight and it became quiet in the street, they came out in droves, enjoyed the sweet fruits and celebrated real feasts, whose remains filled the owner with despair every morning when he entered the shop. So he tried to protect himself against the mice. At first he set up traps all over the shop. | The beaver is an excellent swimmer. It can achieve a speed of up to seven miles per hour in water. Its protection against the cold consists of a skin with thousands of single hairs and a thick layer of fat. With its big lungs it can easily stay under water for more than twenty minutes. The beaver is not only skilful in felling trees, but also an experienced craftsman in building dams. When the beaver fells a tree, it gnaws on the trunk in such a way that the upper and the lower part of the trunk are only connected with each other at a small point. When the connection is narrow and the beaver has become tired, the wind will do the rest. The twigs and thin branches are cut off by the beaver and piled up near its den, which is built on a small island. The thick branches are sorted out and used as wood for building dams.   |
| Comprehension questions (passage 1):1. During what timeframe did the mice come out into the cellar? 2. (True or false) The mice only ate fruit. 3. What did the greengrocer do to protect himself against the mice?  | Comprehension questions (passage2):1. The beaver can achieve a speed of up to \_\_\_ miles per hour. 2. (True or false) The beaver continues to gnaw at the trunk until it falls. 3. How long can the beaver stay underwater?  |
| **Option 2 (center)** **Option 1 (left)** **Which text alignment format do you prefer?** Center-align Left-align |

**Experiment 14: Use of masking and auto tabbing for numeric entry fields**

|  |
| --- |
| [Instructions text: In this experiment, you’ll be asked to enter four different types of numeric data. The first set will be your phone number and date of birth. Please enter that information accurately. The second set will be a fake credit card and login information that we will provide for you. Please make sure to enter information as quickly *and* as accurately as possible. Importantly, you will not be able to go back to change your response so do your best to enter information quickly but without making errors.] |
| Masking: | Auto-tab |
| Enter credit card information | Enter credit card information |
| Enter Login information | Enter Login information |
| Enter phone number | Enter phone number |
| Enter date of birth | Enter date of birth |
| Satisfaction question (repeat after each task- total 8 times)):On a scale of 1- 5 how easy was it to complete the task?  |

**Experiment 15: Typeface styles for question text**

All conditions presented the same survey questions:

|  |
| --- |
| 1. **Have you completed a secondary (high) school diploma or equivalent?**

Examples of secondary (high) school equivalency certificates are GeneralEducational Development (GED) and Adult Basic Education (ABE).* Yes, secondary (high) school diploma
* Yes, secondary (high) school equivalency certificate
* No
 |
| 1. **What is your race?**

Mark one or more.* American Indian or Alaska Native
* Asian
* Black or African American
* Native Hawaiian or other Pacific Islander
* White
 |
| 1. **Last week, were you employed for pay at a job or business?**

If you were temporarily absent from a job or business (on vacation, temporarily ill, on maternity leave, etc.), answer “Yes”.* Yes
* No
 |
| 1. **During the past 12 months, did you take any work related training, such as workshops or seminars?**

Include conferences or professional meetings only if you attended a training session at the conference or meeting. Do not include college coursework for which you were enrolled in a degree program.* Yes
* No
 |
| 1. **Do you have a currently active professional certification or a state or industry license?**

Do not include business licenses, such as a liquor license or vending license. A professional certification or license shows you are qualified to perform a specific job and includes things like Licensed Realtor, Certified Medical Assistant, Certified Teacher, or an IT certification.* Yes
* No
 |
| 1. **How many separate rooms are in your house, apartment, or mobile home?**

Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling. Include bedrooms, kitchens, etc. Exclude bathrooms, porches, balconies, foyers, halls, or unfinished basements.Number of Rooms:  |
| 1. **How many people are living or staying at your address?**

Include everyone who is living or staying there for more than 2 months. Include yourself if you are living there for more than 2 months. Include anyone else staying there who does not have another place to stay, even if they are there for 2 months or less. Do not include anyone who is living somewhere else for more than 2 months, such as a college student living away or someone in the Armed Forces on deployment.Number of People:  |

**Experiment 16: Design of date input methods**

All conditions present the same question and this question is repeated for 36 dates that were determined from a randomly generated list.

|  |
| --- |
| 1. Please enter the following date:

##/##/#### |

**Experiment 17: Design of dropdown boxes**

Participants in all conditions were shown the same survey questions.

The design of the response options differs by condition. We tested an iOS spinner design, an Android pick list design, and radio button and text box design.

|  |
| --- |
| **Please answer the next 12 questions as they apply to you in your real life.** [Begin] |
| **1. What is your date of birth?** [Next](programmer note: The month brings up a list that says January, February, etc. ) |
| **2. What is your age?***Select one** Under 18 years old
* 18-24 years old
* 25-34 years old
* 35-44 years old
* 45-54 years old
* 55-64 years old
* 65-74 years old
* 75 years or older

[Next] |
| **3. What sex are you?***Select one*MaleFemale[Next] |
| **4. On February 1, 2016, were you…***Select one* Married Widowed Separated Divorced Never married[Next] |
| **5. What is the highest grade in elementary school or high school that you finished and got credit for?***Select one*No formal school1st grade2nd grade3rd grade4th grade5th grade6th grade7th grade8th grade9th grade10th grade11th grade12th gradeDon’t know[Next] |
| **6. In what U.S. state did you last attend high school?***Select one*(programmer note: List of state abbreviations, in alphabetical order, but with name spelled out next to it.e.g., MD – Maryland)[Next] |
| **7. Are you a citizen of more than one country?***Select one*YesNo[Next] |
| **8. Which FUEL is used MOST for heating your home?***Select one*GasElectricityFuel oil, kerosene, etc.Solar energyOther fuelNo fuel used[Next] |
| **9. What is the usual degree of difficulty you have with****SEEING words or letters in ordinary newsprint** *Select one*None Slight Moderate Severe Unable to do[Next] |
| **10.Last week were you working full time, part time, going to school, keeping house, or what?** *Select one*Working full timeWorking part timeWith a job, but not at work because of an illness, vacation, strikeUnemployed, laid off, looking for workRetiredIn schoolKeeping houseOther[Next] |
| **11.When thinking about a job, how important is/was salary to you?***Select one* Very important Somewhat important Somewhat unimportant Not important at all [Next] |
| **12.How would you like to complete future surveys?***Select one* A questionnaire sent in the mail A web questionnaire on the Internet A telephone interview No preference[Done] |
| You have completed the 12 questions. We now have two questions about your experience with this survey. [Continue] |
| **How easy or difficult was it to complete this survey?**⭘ 1 = Very Easy⭘ 2⭘ 3⭘ 4⭘ 5 = Very Difficult**How easy or difficult was it for you to accurately touch your answer?**⭘ 1 = Very Easy⭘ 2⭘ 3⭘ 4⭘ 5 = Very Difficult[Next] |
| **Now you will interact with three different ways to collect your date of birth. After you finish using each design, you must choose the design you prefer.**[Continue] |
| Design 1 : spin wheel **What is your date of birth?** (The month brings up a list that says January, February, etc.)Design 2 – pick list**What is your date of birth?** (The month brings up a list that says January, February, etc. )Design 2 – typed data**What is your date of birth?**MM DD YYYY[ ] [ ] [ ][MM] [(Text fields only allow numbers)**I prefer…**⭘ Design 1 – spin wheel⭘ Design 2 – pick list⭘ Design 3 – typed data⭘ Design 1 or 2, but not 3⭘ Design 2 or 3, but not 1⭘ Design 1 or 3, but not 2⭘ No preference[Continue] |
| **Thank you.****That concludes this research experiment. Please hand to phone back to the test administrator.** [Done] |

**Experiment 18: Design of response options**

Participants in all conditions were shown the same survey questions.

*Q1. Trust in people by group; choose-one, 7 categories (6 questions)*

To what extent do you trust people from various groups? Please indicate your level of trust for each of the following groups on a scale from 1 = no trust at all through 7 = complete trust.

*Q1\_1.* Your family

*Q1\_2.* Your neighborhood

*Q1\_3.* People you know personally

*Q1\_4.* People you meet for the first time

*Q1\_5.* People of another religion

*Q1\_6.* People of another nationality

*Response options:* 1 no trust at all, 2, 3, 4, 5, 6, 7 complete trust

*Q2. Confidence in organization; choose-one, 7 categories (9 questions)*

Can you indicate on a scale from 1 to 7 how much confidence you have in each of the following organizations? 1 means that you have no confidence at all in an organization and 7 means that you have full confidence.

*Q2\_1.* The press

*Q2\_2.* The police

*Q2\_3.* The courts

*Q2\_4.* Political parties

*Q2\_5.* Universities

*Q2\_6.* Major companies

*Q2\_7.* Banks

*Q2\_8.* Environmental organizations

*Q2\_9.* Charitable or humanitarian organizations

*Response options:* 1 no confidence at all, 2, 3, 4, 5, 6, 7, full confidence

*Q3. Attitude about science and technology; choose-one, 7 categories (5 questions)*

Now we have some questions about science. Please indicate your level of agreement with each of the following statements on a scale from 1 = strongly disagree through 7 = strongly agree.

*Q3\_1.* Science and technology are making our lives healthier, easier, and more comfortable

*Q3\_2.* Because of science and technology, there will be more opportunities for the next generation.

*Q3\_3.* We depend too much on science and not enough on faith.

*Q3\_4.* One of the bad effects of science is that it breaks down people’s ideas of right and wrong.

*Q3\_5.* It is not important for me to know about science in my daily life.

*Response options:* 1 strongly disagree, 2, 3, 4, 5, 6, 7 strongly agree

*Q4. Important qualities; choose-all-that-apply, 7 categories (1 question)*

Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider especially important?

Select all that apply.

Independence

Hard work

Feeling of responsibility

Imagination

Tolerance and respect for other people

Thrift, saving money and things

Determination, perseverance

*Q5. Growth; choose-all-that-apply, 7 categories (1 question)*

Which of the following problems, if any, do you consider especially serious for the world as a whole?

Select all that apply.

People living in poverty and need

Discrimination against girls and women

Poor sanitation

Infectious diseases

Inadequate education

Environmental pollution

Discrimination against minority groups

*Q6. Country aims; choose-one, 7 categories (1 question)*

People sometimes talk about what the aims of this country should be for the next ten years. Which of these aims, if any, do you consider especially important?

Select all that apply.

A high level of economic growth

Making sure this country has strong defense forces

Trying to make our cities and countryside more beautiful

Maintaining order in the nation

Giving people more say in important government decisions

Giving people more say in their communities

Protecting freedom of speech

*Q7. Housing; choose-one, 7 categories (1 question)*

Which best describes the building you live in? Include all apartments, flats, etc., even if vacant.

A mobile home

A one-family house detached from any other house or a one-family house attached to one or more houses

A building with 2 apartments

A building with 3 or 4 apartments

A building with 5 to 19 apartments

A building with 20 or more apartments

Boat, RV, van, etc.

*Q8. Employment; choose-one, 7 categories (1 question)*

What was your chief job activity or business last week?

An employee of a PRIVATE FOR-PROFIT company or business, or of an individual, for wages, salary, or commissions

An employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization

A local GOVERNMENT employee (city, county, etc.), state GOVERNMENT employee, or Federal GOVERNMENT employee

SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm

SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm

Working WITHOUT PAY in family business or farm

NOT EMPLOYED or RETIRED

*Q9. Education; choose-one, 7 categories (1 question)*

What is the highest degree or level of school you have COMPLETED?

Less than 12th grade – No high school diploma

Regular high school diploma GED or alternative credential

Some college credit, but no degree

Associate’s degree *(for example: AA, AS)*

Bachelor’s degree *(for example: BA, BS)*

Master’s degree *(for example: MA, MS, MEng, MEd, MSW, MBA)*

Professional degree beyond a bachelor’s degree *(for example: MD, DDS, DVM, LLB, JD)* or Doctorate degree *(for example: PhD, EdD)*

**Experiment 19: Design of response options for actions buttons experiment**

Participants will receive the same tasks, but the button shapes will differ. There are no questions in this experiment, only a touching task. There are two practice grids and nine other grids.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Practice round 1: Pools {Select the image that you think is most like a pool.}Practice round 2: Home icon {Select the image that you think is most like a home button in your opinion.}

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|   |  |  |

{Tap X button} |
| Instructions page: [On the next screen, you will see nine styles of ‘X’ buttons. A ‘x’ button is [def of that action button]. Select the one that you think looks most like a ‘x’ button. The trick is NOT to think about it too much. Just select the one that looks more like X as quickly as possible. Ready? Swipe left to continue.).Programming instruction: Instructions page repeated for all 9 grids.On the following page, you will see 9 examples of a *home* button. When a home button is selected, it navigates the user back to the main page... Ready? Swipe to start. |
|

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|   |  |  |

Tap the ‘X’ button |
| Ready?(Swipe to start)  |
| Preference rating/Top 3 rank order |
| Design of action buttons:  |

**Experiment 20: Design of currency entry boxes**

|  |  |
| --- | --- |
| **[Researcher selects 1 of 9 conditions]****[All currency amounts are made up and provided by the researcher.]** |  |
| Participant answers 5 questions per 9 conditions for a total of 45 questions. |
|  | 1. Participant enters the annual cost of real estate property taxes.
 |
|  | 1. Participant enters the estimated cost of the lot and house.
 |
|  | 1. Participant enters the cost of electricity for the previous month.
 |
|  | 1. Participant enters the annual cost of water and sewer for the house.
 |
|  | 1. Participant enters the gross annual income.
 |
|  | 1. Participant provides satisfaction rating.
 |
|  | 1. 1-6 are repeated 8 more times.
 |
| Participants were then asked their subjective preference for currency type.  |  |

**Experiment 23: Question grouping (paging versus scrolling)**

Participants in all conditions will be shown the same survey questions.

*Trust in people by group; 5 categories (2 questions)*

To what extent do you trust people from various groups? Please indicate your level of trust for each of the following groups on a scale from 1 = no trust at all through 5 = complete trust.

*Q1.* Your family

*Q2.* Your neighborhood

*Response options:* 1 no trust at all, 2, 3, 4, 5 complete trust

*Confidence in organization; 10 categories (3 questions)*

Can you indicate on a scale from 1 to 10 how much confidence you have in each of the following organizations? 1 means that you have no confidence at all in an organization and 10 means that you have full confidence.

*Q3.* The press

*Q4.* The police

*Q5.* The courts

*Response options:* 1 no confidence at all, 2, 3, 4, 5, 6, 7, 8, 9, 10 full confidence

*Importance; choose-one, 5 categories (2 questions)*

For each of the following, indicate how important it is in your life. 1 means not at all important and 5 means very important.

*Q6.* Family

*Q7.* Friends

*Response options:* 1 not at all important, 2, 3, 4, 5 very important

*Attitude about science and technology; 10 categories (2 questions)*

Now we have some questions about science. Please indicate your level of agreement with each of the following statements on a scale from 1 = strongly disagree through 10 = strongly agree.

*Q8.* Science and technology are making our lives healthier, easier, and more comfortable

*Q9.* Because of science and technology, there will be more opportunities for the next generation.

*Response options:* 1 strongly disagree, 2, 3, 4, 5, 6, 7, 8, 9, 10 strongly agree

*Trust in people by group; 5 categories (2 questions)*

To what extent do you trust people from various groups? Please indicate your level of trust for each of the following groups on a scale from 1 = no trust at all through 5 = complete trust.

*Q1.* People you know personally

*Q2.* People you meet for the first time

*Response options:* 1 no trust at all, 2, 3, 4, 5 complete trust

*Confidence in organization; 10 categories (3 questions)*

Can you indicate on a scale from 1 to 10 how much confidence you have in each of the following organizations? 1 means that you have no confidence at all in an organization and 10 means that you have full confidence.

*Q3.* Political parties

*Q4.* Universities

*Q5.* Major companies

*Response options:* 1 no confidence at all, 2, 3, 4, 5, 6, 7, 8, 9, 10 full confidence

*Importance; 5 categories (2 questions)*

For each of the following, indicate how important it is in your life. 1 means not at all important and 5 means very important.

*Q6.* Leisure time

*Q7.* Politics

*Response options:* 1 not at all important, 2, 3, 4, 5 very important

*Attitude about science and technology; 10 categories (2 questions)*

Now we have some questions about science. Please indicate your level of agreement with each of the following statements on a scale from 1 = strongly disagree through 10 = strongly agree.

*Q8.* The world is better off because of science and technology.

*Q9.* We depend too much on science and not enough on faith.

*Response options:* 1 strongly disagree, 2, 3, 4, 5, 6, 7, 8, 9, 10 strongly agree

*Trust in people by group; 5 categories (2 questions)*

To what extent do you trust people from various groups? Please indicate your level of trust for each of the following groups on a scale from 1 = no trust at all through 5 = complete trust.

*Q1.* People of another religion

*Q2.* People of another nationality

*Response options:* 1 no trust at all, 2, 3, 4, 5 complete trust

*Confidence in organization; 10 categories (2 questions)*

Can you indicate on a scale from 1 to 10 how much confidence you have in each of the following organizations? 1 means that you have no confidence at all in an organization and 10 means that you have full confidence.

*Q3.* Banks

*Q4.* Environmental organizations

*Q5.* Charitable or humanitarian organizations

*Response options:* 1 no confidence at all, 2, 3, 4, 5, 6, 7, 8, 9, 10 full confidence

*Importance; choose-one, 5 categories (2 questions)*

For each of the following, indicate how important it is in your life. 1 means not at all important and 5 means very important.

*Q6.* Work

*Q7.* Religion

*Response options:* 1 not at all important, 2, 3, 4, 5 very important

*Attitude about science and technology; 10 categories (2 questions)*

Now we have some questions about science. Please indicate your level of agreement with each of the following statements on a scale from 1 = strongly disagree through 10 = strongly agree.

*Q8.* It is not important for me to know about science in my daily life.

*Q9.* One of the bad effects of science is that it breaks down people’s ideas of right and wrong.

*Response options:* 1 strongly disagree, 2, 3, 4, 5, 6, 7, 8, 9, 10 strongly agree

**Experiment 25: Labeling of navigation buttons**

Participants in all conditions will be shown the same survey questions.

|  |
| --- |
| 1. **Have you completed a secondary (high) school diploma or equivalent?**

Examples of secondary (high) school equivalency certificates are GeneralEducational Development (GED) and Adult Basic Education (ABE).* Yes, secondary (high) school diploma
* Yes, secondary (high) school equivalency certificate
* No
 |
| 1. **What is your race?**

Mark one or more.* American Indian or Alaska Native
* Asian
* Black or African American
* Native Hawaiian or other Pacific Islander
* White
 |
| 1. **Last week, were you employed for pay at a job or business?**

If you were temporarily absent from a job or business (on vacation, temporarily ill, on maternity leave, etc.), answer “Yes”.* Yes
* No
 |
| 1. **During the past 12 months, did you take any work related training, such as workshops or seminars?**

Include conferences or professional meetings only if you attended a training session at the conference or meeting. Do not include college coursework for which you were enrolled in a degree program.* Yes
* No
 |
| 1. **Do you have a currently active professional certification or a state or industry license?**

Do not include business licenses, such as a liquor license or vending license. A professional certification or license shows you are qualified to perform a specific job and includes things like Licensed Realtor, Certified Medical Assistant, Certified Teacher, or an IT certification.* Yes
* No
 |

**Experiment 27: Breadcrumb Trails**

All conditions present the same survey questions and the participants are given dummy information to enter for each question.

|  |
| --- |
| 1. What is the name of each person who were living or staying at 100 Nowhere Lane on April 1, 2016?

*Enter the names until you have listed everyone who were living or staying there, then continue to the next page.*First: M.I.: Last: |
| 1. On April 1, 2016, was the house apartment, or mobile home at 100 Nowhere Lane:
* Owned by you or someone in this household with a mortgage or loan?
* Owned by you or someone in this household free and clear (without a mortgage or loan)?
* Rented?
* Occupied without payment of rent?
 |
| 1. What is John Doe’s sex?
* Male
* Female
 |
| 1. What is Jane Doe’s sex?
* Male
* Female
 |
| 1. What is John Doe’s date of birth?

Month: Day: Year: |
| 1. What is Jane Doe’s date of birth?

Month: Day: Year: |
| 1. Which categories describe John Doe?

*Select all boxes that apply** American Indian or Alaska Native
* Asian
* Black or African American
* Native Hawaiian or other Pacific Islander
* White
 |
| 1. Which categories describe Jane Doe?

*Select all boxes that apply** American Indian or Alaska Native
* Asian
* Black or African American
* Native Hawaiian or other Pacific Islander
* White
 |
| 1. What are John Doe’s specific WHITE categories?

*Select all boxes that apply** German
* Irish
* English
* Italian
* Polish
* French
 |
| 1. What are Jane Doe’s specific WHITE categories?

*Select all boxes that apply** German
* Irish
* English
* Italian
* Polish
* French
 |
| 1. What are John Doe’s specific ASIAN categories

*Select all boxes that apply** Chinese
* Filipino
* Asian Indian
* Vietnamese
* Korean
* Japanese
 |
| 1. Does John Doe sometimes live or stay at an address other than 100 Nowhere Lane?

*Select all boxes that apply** No
* Yes, with a parent, grandparent, or other person
* Yes, while attending college
* Yes, to be closer to a job (including military assignments)
* Yes, in a nursing home or a group home
* Yes, in a jail or prison
* Yes, at a seasonal or second residence
* Yes, for another reason
 |
| 1. Does Jane Doe sometimes live or stay at an address other than 100 Nowhere Lane?

*Select all boxes that apply** No
* Yes, with a parent, grandparent, or other person
* Yes, while attending college
* Yes, to be closer to a job (including military assignments)
* Yes, in a nursing home or a group home
* Yes, in a jail or prison
* Yes, at a seasonal or second residence
* Yes, for another reason
 |

**Experiment 28: Field Label Location**

Participants in all conditions will be shown the same survey questions.

**Question 1**: What is your name and your telephone number?

**Label is**: First Name MI Last Name; Telephone Number

**Question 2**: What is your date of birth?

**Label is**: MM / DD / YYYY OR Month/Day/Year (depending on Note 2 below.

**Question 3:** What is your address?

**Label is:** Address number/ Street Name / State / Zip code

**Question 4:** Please enter your email so that we may have it in case we need to contact you.

**Label:** Email address and Confirm Email Address.

**Question 5:** Please select a security question to answer. If you logout you will be asked to provide this answer to re-enter the survey.

**Security questions to choose from are:**

In what city were you born?

What color was your first car?

What is the name of your best friend in high school?

What is the name of your first pet?

**Question 6:** How many separate rooms are in the place where you live? How many of these room are bedrooms?

**Label is:** Number of rooms and Number of bedrooms

**Question 7:** Last month what was the cost of electricity for the place where you live?

**Label is:** Last month's cost – Dollars

DT2: Requires thought

**Question 8:** How many hours did you spend outside last week?

**Label**: Hours Minutes (Note a somewhat similar layout to ACS time left for work)

**Question 9:** Many things are desirable, but not all of them are essential characteristics of democracy. What do you think is an essential characteristic of democracy?

**Label**: characteristic of democracy

**Question 10**: People learn what is going on in this country and the world from various sources. What sources do you use to learn what is going on in this country and the world?

**Label**: sources

**Question 11:**

How many hours last week did you spend reading a book, magazine, or Website?

**Label**: hours last week

**Question 12**: In the past week, how many days did you eat the evening meal alone?

**Label**: days

DT2: Requires thought

**Question 13:** What kind of work are you doing? If you don't currently work, what type were you doing when you did work? (For example: registered nurse, personnel manager, supervisor of a department, secretary, accountant).

**Experiment 29: Labeling for within question “Help”**

Participants in all conditions will be shown the same survey questions.

1. What is your favorite color?
	* **Response field**: open text field with box
	* **Response field label**: Color
	* **Help text for Condition 4**: Find more information here on favorite color
	* **Help text link**: The favorite color is the color that you like the most. Providing this color will help us determine which color is favored by most Americans.
2. On April 1, 2017 how many people will be living or staying at your address, including yourself?
	* **Response field**: open text field with number keypad
	* **Response field label**: people
	* **Help text for Condition 4**: Find more information here on who to include in your household count
	* **Help link text**:

Count the people who live at your address using our guidelines:

* We need to count people where they usually live and sleep.
* For people with more than one place to live, we need to count them at the place where they sleep most of the time.

INCLUDE these people:

* Babies and children living at your house including foster children
* Roommates
* Boarders
* People staying at your address who have no permanent place to live

Do NOT include these people

* College students who live away from your address most of the year
* Armed forces personnel who live away
* People who, on July 4, 2017 will be in a nursing home, mental hospital, jail, prison, detention center, etc.
1. How many cars do you own?

**Response field**: Open field with number keypad that opens

**Response Field label**: Car(s)

**Help text for condition 4**: Find more information here on car ownership.

**Help link text**: Count the number of cars that you own with or without a loan on them. Do not include cars that you lease.

1. A. What is your impression of the new Cybersecurity Enhancement Act of 2015?

**Response options**:

* + Very favorable
	+ Somewhat favorable
	+ Neither favorable nor unfavorable
	+ Somewhat unfavorable
	+ Very unfavorable.

B. (on the same screen) How did you first learn about the Cybersecurity Enhancement Ace of 2015?

**Response options:**

* + - * Never heard of it
			* Through the nightly news, radio news or Website news source
			* Through reports from the federal government radio
			* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Help text for Condition 4**: Find more information here on the Cybersecurity Enhancement Act of 2015?

**Help link text**: The Cybersecurity Enhancement Act of 2015 allows Federal information systems to be protected from malicious activities through cybersecurity screening of any and all transmitted data.

1. How many pieces of furniture do you have in your house?

**Response field**: open text box with the number keypad popping open

**Response field label**: furniture

**Help text for Condition 4**: Find more information here on how we define furniture.

**Help link text**: Count only the number of beds in your household. If you have a queen or a king sized bed count that as two items of furniture.

1. a. Think of all the vegetables that you ate last week. How many of the vegetables that you ate contained folic acid?

**Response field**: Open text box with keypad that pops open

**Response field** **label**: vegetables with folic acid

**Help link for Condition 4**: Find more information here on folic acid.

**Help link text**: Folic acid – Folic acid is found in avocado, bananas, orange juice, asparagus, leafy vegetables, dried beans and peas and is added to commercial grain products.

1. a. Do you think your body needs more or less of polyunsaturated fatty acid?

**Response options**

* + More
	+ Less

**Help link for Condition 4**: Find more information here on polyunsaturated fatty acid.

**Help link text**: Polyunsaturated fatty acid – Polyunsaturated fatty acids are an important part of a healthy diet. They are found in plant and sea foods as well as safflower oil, canola oil, and corn oil. The average American adult diet is not getting enough polyunsaturated fatty acids in their diet.

1. How many health incidents have you had in the past 3 months?

**Response text** – open text box with keyboard that pops open

**Response label:** health incidents

**Help text for Condition 4**: Find more information here on what is considered a health incidence.

**Help link text:** Count only the number of times you have been hospitalized in the past 3 months. Do not count visits to the doctors unless the visit was in a hospital where you were admitted for treatment.

Part II

Vignettes: Done with Paper Mock Ups/Or with a program where no links work…and it’s a “first click” type of setting

Vignette #1

Mrs. Smith is responding to the census questionnaire for her household. She lives with her son, who pays the mortgage, but she doesn't pay anything. If you were Ms. Smith, what would you do if you were looking at this screen?

Vignette #2

You recently had a new roommate move in named Jamie Doe. You don’t know Jamie’s age but Jamie recently went out to celebrate her birthday this month. She also recently graduated from college.

Please show me what you would do to answer this question for Jamie and tell me why you are answering this way.

Vignette #3

Jessica is married to Tom, and they are both in the Army. Jessica has just been redeployed to Afghanistan for the third time. She's only been gone a few days and Tom is filling out this survey at 1234 Dusty Road. Should Tom include Jessica's name on the survey?

Final Question:

Did you notice a place on the screen where you could click for assistance?

**Response options**:

Yes

No

If yes is answered – the follow up question is triggered (on same screen):

What did the label that offered assistance say exactly?

**Response field**: Open text box

**Experiment 31: Placement of general help**

Participants in all conditions will be shown the same survey questions.

|  |
| --- |
| Please select the button below to begin your survey. [Begin] |
| *Q1. Trust in people by group; choose-one, 7 categories (6 questions)***To what extent do you trust people from various groups? Please indicate your level of trust for each of the following groups on a scale from 1 = no trust at all through 7 = complete trust.** *Q1\_1.* Your family *Q1\_2.* Your neighborhood*Q1\_3.* People you know personally*Q1\_4.* People you meet for the first time*Q1\_5.* People of another religion *Q1\_6.* People of another nationality*Response options:* 1 no trust at all, 2, 3, 4, 5, 6, 7 complete trust[Next] |
| Q2. **This next question is not an opinion question. The answer is located within this survey and you now have to find it.** **What is the estimated time it will take to complete this survey?** [ ] minutes[Next] |
| ***Q3. Confidence in organization; choose-one, 7 categories (9 questions)*****Can you indicate on a scale from 1 to 7 how much confidence you have in each of the following organizations? 1 means that you have no confidence at all in an organization and 7 means that you have full confidence**. *Q2\_1.* The press*Q2\_2.* The police*Q2\_3.* The courts*Q2\_4.* Political parties *Q2\_5.* Universities*Q2\_6.* Major companies *Q2\_7.* Banks*Q2\_8.* Environmental organizations*Q2\_9.* Charitable or humanitarian organizations*Response options:* 1 no confidence at all, 2, 3, 4, 5, 6, 7, full confidence[Done] |
| You have completed the main survey. We now have a question about your experience with this survey. [Continue] |
| **How easy or difficult was it to find the information about the length of the survey?**⭘ 1 = Very Easy⭘ 2⭘ 3⭘ 4⭘ 5 = Very Difficult |
| **Thank you.****That concludes this research experiment. Please hand to phone back to the test administrator.** [Done] |

Condition 1 will have these options on the screen at the top.



Condition 2 will have one button called menu with these options:



**Experiment 32: Display of error messages**

Participants in all conditions will be shown the same survey questions. Many of the questions are identical to those used in Experiment 17. One condition shows the edit message at the top of the screen; one condition shows the edit message in a pop-up messages; and one condition shows the edit message near the field. Edit messages appear any time the participant leaves a variable blank with “Please select an answer to each question” and at the telephone number, date of birth and state with a message about the formatting.

|  |
| --- |
| **Please answer the survey as it applies to you in real life.** [Begin] |
| **What is your name?**First Name[ ]Middle Name (Optional)[ ]Last Name[ ]**What is your telephone number?****[ ]**[Next] |
| **How many email addresses do you use?****[ ]****What email address are you most likely to read?**[ ]**Confirm email**[ ][Next] |
| **What is your date of birth?****[ ]**[Next][MM] [ |
| **What is your age?***Select one.** o Under 18 years old
* o 18-24 years old
* o 25-34 years old
* o 35-44 years old
* o 45-54 years old
* o 55-64 years old
* o 65-74 years old
* o 75 years or older

[Next] |
| **What sex are you?***Select one.*o Maleo Female[Next] |
| **On February 1, 2016, were you…***Select one* O Married O Widowed O Separated O Divorced O Never married[Next] |
| **What is the highest grade in elementary school or high school that you finished and got credit for?***Select one.*o No formal schoolo 1st gradeo 2nd gradeo 3rd gradeo 4th gradeo 5th gradeo 6th gradeo 7th gradeo 8th gradeo 9th gradeo 10th gradeo 11th gradeo 12th gradeo Don’t know[Next] |
| **In what U.S. state did you last attend high school?**[ ][Check Box] (Left of text) **If you attended school outside the U.S.**[Next] |
| **Are you a citizen of more than one country?***Select one.*o Yeso No[Next] |
| **Which FUEL is used MOST for heating your home?***Select one.*o Gaso Electricityo Fuel oil, kerosene, etc.o Solar energyo Other fuelo No fuel used[Next] |
| **Last week were you working full time, part time, going to school, keeping house, or** **what?** *Select one.*o Working full timeo Working part timeo With a job, but not at work because of an illness, vacation, strikeo Unemployed, laid off, looking for worko Retiredo In schoolo Keeping houseo Other[Next] |
| **When thinking about a job, how important is each of the following factors to you?****Salary** o Very important o Somewhat important o Somewhat unimportant o Not important at all**Benefits** o Very important o Somewhat important o Somewhat unimportant o Not important at all**Job security** o Very important o Somewhat important o Somewhat unimportant o Not important at all**Job location** o Very important o Somewhat important o Somewhat unimportant o Not important at all[Done] |
| You have completed the survey. We now have a question about your experience with this survey.  [Continue] |
| **How easy or difficult was it to complete this survey?**⭘ 1 = Very Easy⭘ 2⭘ 3⭘ 4⭘ 5 = Very Difficult[Submit] |
| **Now we want you to choose the message design you prefer.**[Next] |
| **Rank these message types in order of the most helpful to correct your errors:** ⭘ Messages which appear in a separate pop-up box like this one: then show one of the messages we have (not this one)⭘ Messages which appear below the field⭘ Messages which appear at the top of the field[programmer note: use one example from the survey, not these exact screen shots][Continue] |
| **Thank you.****That concludes this research experiment. Please hand to phone back to the test administrator.** [Done] |

**Experiment 33: Branding/Use of logos**

Participants in all conditions will be shown the following survey questions. There will be four conditions, with each condition having a unique branding design.

|  |  |  |
| --- | --- | --- |
| Question # | Questions and screen design | Source of questions |
|  | **Please answer the survey as it applies to you in real life.** [Begin] |  |
| *1* | **Have you closely observed, fed, or photographed wildlife recreationally or maintained natural areas around your home for the benefit of wildlife in the past 5 years?**o Yeso No[Next] | *2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* |
| *2* | **Do you plan to fish recreationally, including shell fishing, within the next 12 months?**o Yeso No[Next] | *2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* |
| *3* | **Did you take any trips or outings at least one mile from your home for the primary purpose of observing, photographing, or feeding wildlife, including wild birds, in the past three months?**o Yeso No[Next][MM] [ | *2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* |
| *4* | **Have you ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?**o Yeso No[Next] | *2016 National Household Education Survey* |
| *5* | **Which one of the following were you in your last job?**o An employee of a private company, business, or individual, for wages, salary, or commissiono A local (city, county, etc.), state, or federal government employeeo Self-employed in own business, professional practice, or farmo Working without pay for family business or farm[Next] | *Adapted from 2016 National Household Education Survey* |
| *6* | **During your last job, in the weeks you worked, how many hours did you usually work per week?****[ ]**[Next] | *Adapted from 2016 National Household Education Survey* |
|  | **Thank you.****That concludes this research experiment. Please hand to phone back to the test administrator.** [Done] |  |

**Experiment 34: Design of open-ended response boxes**

Participants in all conditions will be shown the same survey questions. One condition has no character count-down feature while the other two conditions has a character count-down feature which is either above the field or below the field.

|  |
| --- |
| Please answer the next six questions as they apply to you in your real life. [Begin] |
| **What is your ancestry or ethnic origin?** [ ] |
| **What kind of work were you doing on your last job – that is, what were your duties and****responsibilities on your last job? Please be as specific as possible, including any area of specialization.**[Next] |
| **What was that employer’s main business or industry – that is, what did that employer make****or do?***If your principal employer had more than one type of**business, report the type of business primarily**performed at the location where you worked.**Example: Production of microprocessor chips*EMPLOYER’S MAIN BUSINESS |
| **What is the main reason you left your last job?****[ ]** |
| **When looking for work what are all the things you have done to find work?** |
| **Finally, I'd like to find out how you spent your time yesterday, from 4:00 in the morning until 4:00 AM this morning. I'll need to know where you were and who else was with you. If an activity is too personal, there's no need to mention it.**[Done] |
| You have completed all the questions. We now have a few questions about your experience with this survey. [Continue] |
| **How easy or difficult was it to complete this survey?**⭘ 1 = Very Easy⭘ 2⭘ 3⭘ 4⭘ 5 = Very Difficult**How easy or difficult was it for you to enter your answers?**⭘ 1 = Very Easy⭘ 2⭘ 3⭘ 4⭘ 5 = Very Difficult [Next] |
| **Which type of typing box did you see during the survey?** You can mark all that apply. You can also interact with these boxes to see how they work.**[] Typing box #1** (this is condition 1)**[ ]****[] Typing box #2** (this is condition 2)**[ ]****[] Typing box #3** (this is condition 3)**[ ]****[] I don’t know.****I prefer (Mark all that apply)****[] Typing box 1****[] Typing box 2****[] Typing box 3****[] No preference****[Done]** |
| **Thank you.****That concludes this research experiment. Please hand to phone back to the test administrator.** [Done] |

**Experiment 36 Virtual Keyboard**

**Question 1:** How many hours last week did you spend reading a book or magazine, or Website?

Label is: Hours

**Question 2**: In the past week, how many days did you eat the evening meal alone?

Label is: Days

**Question 3:** How much time (in hours and minutes) did you spend watching TV last week?

**Label**: Hours / Minutes

**Question 4:** How many separate rooms are in the place where you live? How many of these room are bedrooms? (Note – keep the instruction text as seen in image below for this question)

**Label is:** Number of rooms and Number of bedrooms

**Question 5:** Last month what was the cost of electricity for the place where you live? (Note: add instruction: If you don’t know, use your best guess.)

**Label is:** Last month's cost – Dollars

**Question 6:** How much do you pay in rent or mortgage each month? (Note: Add instruction: If you don’t pay a rent or mortgage please enter your monthly property tax.)

**Label is:** Monthly amount - Dollars

**Question 7:** How much was your last grocery bill?

**Label is:** last grocery bill

**Question 8:** How much money do you spend on haircuts/hair styling in a month?

**Label is:** amount per month

**Question 9**: Please indicate how favorable or unfavorable you feel toward the following organizations by entering a number between 0 and 100. 0 = very unfavorable; 100 = very favorable. How favorable or unfavorable would you rate…

**Label is**: Environmental organizations

**Label is**: Banks

**Label is**: Universities

**Label is**: Labor unions

**Label is**: Political parties

**Label is**: The courts

**Experiment 37: Placement of “next” and “previous” navigation buttons**

Participants in all conditions will be shown the same survey questions. These questions are the same as the ones used in Experiment 23. Different participants will complete Experiment 23 and Experiment 37.

*Trust in people by group; 5 categories (2 questions)*

To what extent do you trust people from various groups? Please indicate your level of trust for each of the following groups on a scale from 1 = no trust at all through 5 = complete trust.

*Q1.* Your family

*Q2.* Your neighborhood

*Response options:* 1 no trust at all, 2, 3, 4, 5 complete trust

*Confidence in organization; 10 categories (3 questions)*

Can you indicate on a scale from 1 to 10 how much confidence you have in each of the following organizations? 1 means that you have no confidence at all in an organization and 10 means that you have full confidence.

*Q3.* The press

*Q4.* The police

*Q5.* The courts

*Response options:* 1 no confidence at all, 2, 3, 4, 5, 6, 7, 8, 9, 10 full confidence

*Importance; choose-one, 5 categories (2 questions)*

For each of the following, indicate how important it is in your life. 1 means not at all important and 5 means very important.

*Q6.* Family

*Q7.* Friends

*Response options:* 1 not at all important, 2, 3, 4, 5 very important

*Attitude about science and technology; 10 categories (2 questions)*

Now we have some questions about science. Please indicate your level of agreement with each of the following statements on a scale from 1 = strongly disagree through 10 = strongly agree.

*Q8.* Science and technology are making our lives healthier, easier, and more comfortable

*Q9.* Because of science and technology, there will be more opportunities for the next generation.

*Response options:* 1 strongly disagree, 2, 3, 4, 5, 6, 7, 8, 9, 10 strongly agree

*Trust in people by group; 5 categories (2 questions)*

To what extent do you trust people from various groups? Please indicate your level of trust for each of the following groups on a scale from 1 = no trust at all through 5 = complete trust.

*Q1.* People you know personally

*Q2.* People you meet for the first time

*Response options:* 1 no trust at all, 2, 3, 4, 5 complete trust

*Confidence in organization; 10 categories (3 questions)*

Can you indicate on a scale from 1 to 10 how much confidence you have in each of the following organizations? 1 means that you have no confidence at all in an organization and 10 means that you have full confidence.

*Q3.* Political parties

*Q4.* Universities

*Q5.* Major companies

*Response options:* 1 no confidence at all, 2, 3, 4, 5, 6, 7, 8, 9, 10 full confidence

*Importance; 5 categories (2 questions)*

For each of the following, indicate how important it is in your life. 1 means not at all important and 5 means very important.

*Q6.* Leisure time

*Q7.* Politics

*Response options:* 1 not at all important, 2, 3, 4, 5 very important

*Attitude about science and technology; 10 categories (2 questions)*

Now we have some questions about science. Please indicate your level of agreement with each of the following statements on a scale from 1 = strongly disagree through 10 = strongly agree.

*Q8.* The world is better off because of science and technology.

*Q9.* We depend too much on science and not enough on faith.

*Response options:* 1 strongly disagree, 2, 3, 4, 5, 6, 7, 8, 9, 10 strongly agree

*Trust in people by group; 5 categories (2 questions)*

To what extent do you trust people from various groups? Please indicate your level of trust for each of the following groups on a scale from 1 = no trust at all through 5 = complete trust.

*Q1.* People of another religion

*Q2.* People of another nationality

*Response options:* 1 no trust at all, 2, 3, 4, 5 complete trust

*Confidence in organization; 10 categories (2 questions)*

Can you indicate on a scale from 1 to 10 how much confidence you have in each of the following organizations? 1 means that you have no confidence at all in an organization and 10 means that you have full confidence.

*Q3.* Banks

*Q4.* Environmental organizations

*Q5.* Charitable or humanitarian organizations

*Response options:* 1 no confidence at all, 2, 3, 4, 5, 6, 7, 8, 9, 10 full confidence

*Importance; choose-one, 5 categories (2 questions)*

For each of the following, indicate how important it is in your life. 1 means not at all important and 5 means very important.

*Q6.* Work

*Q7.* Religion

*Response options:* 1 not at all important, 2, 3, 4, 5 very important

*Attitude about science and technology; 10 categories (2 questions)*

Now we have some questions about science. Please indicate your level of agreement with each of the following statements on a scale from 1 = strongly disagree through 10 = strongly agree.

*Q8.* It is not important for me to know about science in my daily life.

*Q9.* One of the bad effects of science is that it breaks down people’s ideas of right and wrong.

*Response options:* 1 strongly disagree, 2, 3, 4, 5, 6, 7, 8, 9, 10 strongly agree

**Experiment 38: Use of predictive text**

Participants in all conditions will be shown the same survey questions.

**Question 1** : What is your race or origin?

**Question 2**: Please enter the name of a prescription drug you are currently taking or have taken in the past 3 years. (If you are taking more than one, simply choose one). If you don’t have a prescription drug that you are taking or have taken in the past 3 years, please enter what medicine you use for everyday relief for aches or pains.

**Question 3**: What is the make and model of your vehicle? *Note: if you do not currently have a car, what is the make and model of a car you would like to have.*