UnderStandingAmericaStudy

UAS 216: BTAC COGNITIVE GAME 1

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Fielded March 18, 2020 - November 17, 2020

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1 INTRODUCTION

This UAS panel survey, titled ”UAS 216: BTAC Cognitive Game 1” is part of a randomization experiment which asked people to play the BTAC game twice - once on a mobile device, and once on a computer that uses a keyboard. The game itself consists of a series of questions in which they press keys or tap their screen in response to certain words. This survey is no longer in the field.
Related surveys are UAS229 (BTAC Screener, which controls the randomization) and UAS217 (BTAC Game 2). This series was used to inform the final versions of the BTAC baseline data collection (UAS323 baseline screener, UAS324 baseline game1, and UAS325 baseline game 2).

1.1 Topics

This survey contains questions (among others) on the following topics: Cognitive Abilities. A complete survey topic categorization for the UAS can be found here.

1.2 Experiments

This survey did not include any experiments. A complete survey experiment categorization for the UAS can be found here.

1.3 Citation

Each publication, press release or other document that cites results from this survey must include an acknowledgment of UAS as the data source and a disclaimer such as, ‘The project described in this paper relies on data from survey(s) administered by the Understanding America Study, which is maintained by the Center for Economic and Social Research (CESR) at the University of Southern California. The content of this paper is solely the responsibility of the authors and does not necessarily represent the official views of USC or UAS.’ For any questions or more information about the UAS, contact Tania Gutsche, Project and Panel Manager, Center for Economic and Social Research, University of Southern California, at tgutsche@usc.edu.

2 SURVEY RESPONSE AND DATA

2.1 Sample selection and response rate

The sample selection for this survey was:

All active respondents who completed UAS229.

As such, this survey was made available to 1010 UAS participants. Of those 1010 participants, 964 completed the survey and are counted as respondents. Of those who are not counted as respondents, 37 started the survey without completing and 9 did not start the survey. The overall response rate was 95.45%.

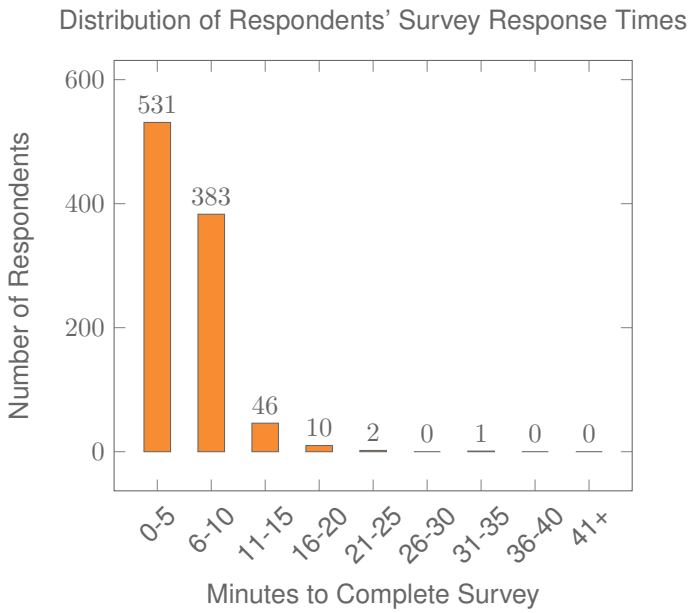
Note: We are unable to provide sample weights for a small number of UAS members (see the Sample weighting section below for details). If they completed the survey, these members are included in the data set with a weight of zero, but accounted for in the computation of total sample size and survey response rate.%.

The detailed survey response rate is as follows:

UAS216 - Response Overview	
Size of selected sample	1010
Completed the survey	964
Started but did not complete the survey	37
Did not start the survey	9
Response rate	95.45%

2.2 Timings

The survey took respondents an average of 6 minutes, and the full distribution of survey response times is available in the figure below. Times per question are available upon request.



2.3 Weighting

Weights are not (yet) available for this survey. Please contact UAS staff with any questions.

3 STANDARD VARIABLES

Each Understanding America Study data contains a series of standard variables, consisting of individual, household and sample identifiers, language indicator, time stamps and a rating by the respondent of how much he or she liked the survey:

- **uasid**: the identifier of the respondent. This identifier is assigned to a respondent at recruitment and stays with the respondent throughout each and every survey he/she participates in. When analyzing data from multiple surveys, the 'uasid' can be used to merge data sets.

- **uashhid**: the household identifier of the respondent. Every member is assigned a household identifier, stored in the variable 'uashhid'. For the primary respondent this identifier equals his or her 'uasid'. All other eligible members of the primary respondent's household (everyone who is 18 or older in the household) who become UAS respondents receive the 'uasid' of the primary respondent as their household identifier. The identifier 'uashhid' remains constant over time for all respondents. Thus it is always possible to find the original UAS household of an UAS panel member (even after they, for example, have moved out to form another household).

- **survhhid**: uniquely identifies the household a UAS panel member belongs to in a given survey. For instance, if the primary respondent and his/her spouse are both UAS members at the time of a given survey, they both receive the same 'survhhid' identifier for that survey. If they subsequently split, they receive two different 'survhhid' in subsequent surveys. They, however, always share the same 'uashhid'. The identifier 'survhhid' is set to missing (.) if no other household members are UAS panel members at the time of the survey. Since individuals can answer the same survey at different points in time (which can be relatively far apart if the survey is kept in the field for a prolonged time), it may be possible that, within the same data set, household members have different 'survhhid' reflecting different household compositions at the time they answered the survey. For instance, suppose that the primary respondent and his/her spouse are both UAS members. If the primary respondent answers the survey when he/she is living with the spouse, but the spouse answers the survey when the couple has split, they receive different 'survhhid'. Hence, the variable 'survhhid' identifies household membership of UAS panel members, at the time the respondent answers the survey. Note: in the My Household survey 'survhhid' is set to unknown (.u) for respondents who last participated in the My Household survey prior to January 21, 2015.

- **uasmembers**: is the number of other household members who are also UAS panel members at the time of the survey. Since individuals can answer the same survey at different points in time (which can be relatively far apart is the survey is kept in the field for a prolonged time), it may be possible that, within the same data set, the primary respondent of a household has a value of '0', whereas the second UAS household respondent has a value of '1'. Therefore 'uasmembers' should be interpreted as the

number of household and UAS panel members at the time the respondent answers the survey. Note: in the My Household survey 'uasmembers' is set to unknown (.u) for respondents who last participated in the My Household survey prior to January 21, 2015.

- **sampleframe**: indicates the sampling frame from which the household of the respondent was recruited. All UAS recruitment is done through address based sampling (ABS) in which samples are acquired based on postal records. Currently, the variable 'sampleframe' takes on four values reflecting four distinct sample frames used by the UAS over the year (in future data sets the number of sample frames used for recruitment may increase if additional specific populations are targeted in future recruitment batches):

  1. U.S. National Territory: recruited through ABS within the entire U.S.
  2. Areas high concentration Nat Ame: recruited through ABS in areas with a high concentration of Native Americans in the zip-code. Within these batches, individuals who are not Native Americans are not invited to join the UAS.
  3. Los Angeles County: recruited through ABS within Los Angeles County.
  4. California: recruited through ABS within California.

  Note: prior to March 6, 2024 this variable was called sampletype and had the following value labels for the above list in UAS data sets:

  1. Nationally Representative Sample: recruited through ABS within the entire U.S.
  2. Native Americans: recruited through ABS in areas with a high concentration of Native Americans. Within these batches, individuals who are not Native Americans are not invited to join the UAS.
  3. LA County: recruited through ABS within Los Angeles County.
  4. California: recruited through ABS within California.

- **batch**: indicates the batch from which the respondent was recruited. Currently, this variable takes the following values (in future data sets the number of batches may increase as new recruitment batches are added to the UAS):

  1. ASDE 2014/01
  2. ASDE 2014/01
  3. ASDE 2014/01
  4. Public records 2015/05
  5. MSG 2015/07
  6. MSG 2016/01
  7. MSG 2016/01
  8. MSG 2016/01
  9. MSG 2016/02

10. MSG 2016/03
11. MSG 2016/04
12. MSG 2016/05
13. MSG 2016/08
14. MSG 2017/03
15. MSG 2017/11
16. MSG 2018/02
17. MSG 2018/08
18. MSG 2019/04
19. MSG 2019/05
20. MSG 2019/11
21. MSG 2020/08
22. MSG 2020/10
23. MSG 2021/02
24. MSG 2021/08
25. MSG 2021/08
26. MSG 2022/02
27. MSG 2022/02
28. MSG 2022/08
29. MSG 2022/11
30. MSG 2022/11
31. MSG 2023/01
32. MSG 2023/06
33. MSG 2023/09
34. MSG 2023/10

Note: prior to March 6, 2024 this variable had the following value labels for the above list in UAS data sets:

1. ASDE 2014/01 Nat.Rep.
2. ASDE 2014/01 Native Am.
3. ASDE 2014/11 Native Am.
4. LA County 2015/05 List Sample
5. MSG 2015/07 Nat.Rep.
6. MSG 2016/01 Nat.Rep. Batch 2
7. MSG 2016/01 Nat.Rep. Batch 3

8. MSG 2016/01 Nat.Rep. Batch 4
9. MSG 2016/02 Nat.Rep. Batch 5
10. MSG 2016/03 Nat.Rep. Batch 6
11. MSG 2016/04 Nat.Rep. Batch 7
12. MSG 2016/05 Nat.Rep. Batch 8
13. MSG 2016/08 LA County Batch 2
14. MSG 2017/03 LA County Batch 3
15. MSG 2017/11 California Batch 1
16. MSG 2018/02 California Batch 2
17. MSG 2018/08 Nat.Rep. Batch 9
18. MSG 2019/04 LA County Batch 4
19. MSG 2019/05 LA County Batch 5
20. MSG 2019/11 Nat. Rep. Batch 10
21. MSG 2020/08 Nat. Rep. Batch 11
22. MSG 2020/10 Nat. Rep. Batch 12
23. MSG 2021/02 Nat. Rep. Batch 13
24. MSG 2021/08 Nat. Rep. Batch 15
25. MSG 2021/08 Nat. Rep. Batch 16
26. MSG 2022/02 Nat. Rep. Batch 17 (priority)
27. MSG 2022/02 Nat. Rep. Batch 17 (regular)
28. MSG 2022/08 Nat. Rep. Batch 18
29. MSG 2022/11 LA County Batch 6
30. MSG 2022/11 Nat. Rep. Batch 20
31. MSG 2023/01 Nat. Rep. Batch 21
32. MSG 2023/06 Nat. Rep. Batch 22
33. MSG 2023-09 Native Am. Batch 3
34. MSG 2023-10 Nat. Rep. Batch 23

- **primary_respondent**: indicates if the respondent was the first person within the household (i.e. to become a member or whether s/he was added as a subsequent member. A household in this regard is broadly defined as anyone living together with the primary respondent. That is, a household comprises individuals who live together, e.g. as part of a family relationship (like a spouse/child/parent) or in context of some other relationship (like a roommate or tenant).

- **hardware**: indicates whether the respondent ever received hardware or not. Note: this variable should not be used to determine whether a respondent received hardware at a given point in time and/or whether s/he used the hardware to participate in a survey. Rather, it indicates whether hardware was ever provided:

1. None
2. Tablet (includes Internet)

- **language**: the language in which the survey was conducted. This variable takes a value of 1 for English and a value of 2 for Spanish.
- **start_date (start_year, start_month, start_day, start_hour, start_min, start_sec)**: indicates the time at which the respondent started the survey.
- **end_date (end_year, end_month, end_day, end_hour, end_min, end_sec)**: indicates the time at which the respondent completed the survey.
- **cs_001**: indicates how interesting the respondent found the survey.

4 BACKGROUND DEMOGRAPHICS

Every UAS survey data set includes demographic variables, which provide background information about the respondent and his/her household. Demographic information such as age, ethnicity, education, marital status, work status, state of residence, family structure is elicited every quarter through the ‘‘My Household’’ survey. The demographic variables provided with each survey are taken from the most recent ‘MyHousehold’ survey answered by the respondent. If at the time of a survey, the information in ‘‘My Household’’ is more than three months old, a respondent is required to check and update his or her information before being able to take the survey.

The following variables are available in each survey data set:

- **gender**: the gender of the respondent.
- **dateofbirth_year**: the year of birth of the respondent.
- **age**: the age of the respondent at the start of the survey.
- **agerange**: if the respondent’s age cannot be calculate due to missing information, ‘agerange’ indicates the approximate age. Should a value for both the ‘age’ and ‘agerange’ be present, then ‘age’ takes precedence over ‘agerange’.
- **citizenus**: indicates whether the respondent is a U.S. citizen.
- **bornus**: indicates whether the respondent was born in the U.S.
- **stateborn**: indicates the state in which the respondent was born. This is set to missing (.) if the respondent was not born in the U.S.
- **countryborn**: indicates the country in which the respondent was born. This is set to missing (.) if the respondent was born in the U.S.
- **countryborn_other**: indicates the country of birth if that country is not on the drop down list of countries shown to the respondent’.
- **statereside**: the state in which the respondent is living.
- **immigration_status**: indicates whether the respondent is an immigrant. It takes one of the following values: 0 Non-immigrant, 1 First generation immigrant (immigrant who migrated to the U.S), 2 Second generation immigrant (U.S.-born children of at least one foreign-born parent), 3 Third generation immigrant (U.S.-born children of at least one U.S.-born parent, where at least one grandparent is foreign-born), or 4 Unknown immigrant status.
- **maritalstatus**: the marital status of the respondent.
- **livewithpartner**: indicates whether the respondent lives with a partner.

- **education**: the highest level of education attained by the respondent.
- **hisplatino**: indicates whether the respondent identifies him or herself as being Hispanic or Latino. This variable is asked separately from race.
- **hisplatinogroup**: indicates which Hispanic or Latino group a respondent identifies him or herself with. This is set to missing (.) if the respondent does not identify him or herself as being Hispanic or Latino.
- **white**: indicates whether the respondent identifies him or herself as white (Caucasian).
- **black**: indicates whether the respondent identifies him or herself as black (African-American).
- **nativeamer**: indicates whether the respondent identifies him or herself as Native American (American Indian or Alaska Native).
- **asian**: indicates whether the respondent identifies him or herself as Asian (Asian-American).
- **pacific**: indicates whether the respondent identifies him or herself as Native Hawaiian or Other Pacific Islander.
- **race**: indicates the race of the respondent as singular (e.g., '1 White' or '2 Black') or as mixed (in case the respondent identifies with two or more races). The value '6 Mixed' that the respondent answered 'Yes' to at least two of the single race categories. This variable is generated based on the values of the different race variables (white, black, nativeamer, asian, pacific). This composite measure is not conditional on hisplatino, so an individual may identify as Hispanic or Latino, and also as a member of one or more racial groups.
- **working**: indicates whether the respondent is working for pay.
- **sick_leave**: indicates whether the respondent is not working because sick or on leave.
- **unemp_layoff**: indicates whether the respondent is unemployed or on lay off.
- **unemp_look**: indicates whether the respondent is unemployed and looking for a job.
- **retired**: indicates whether the respondent is retired.
- **disabled**: indicates whether the respondent has a disability.
- **lf_other**: specifies other labor force status.
- **laborstatus**: indicates the labor force status of the respondent as singular (e.g., '1 Working for pay' or '2 On sick or other leave') or as mixed (in case the respondent selects two or more labor statuses). The value '8 Mixed' indicates that the respondent answered 'Yes' to at least two of the single labor force status variables. This variable is generated based on the values of the different labor status variables (working, sick_leave, unempl_layoff, unempl_look, retired, disabled, lf_other).

- **employmenttype**: indicates the employment type of the respondent (employed by the government, by a private company, a nonprofit organization, or self-employed). This is set to missing (.) if the respondent is not currently working or currently on sick or other leave.

- **workfullpart**: indicates whether the respondent works full or part-time. This is set to missing (.) if the respondent is not currently working or currently on sick or other leave.

- **hourswork**: indicates the number of hours the respondent works per week. This is set to missing (.) if the respondent is not currently working or currently on sick or other leave.

- **hhincome**: is the total combined income of all members of the respondent's household (living in their household) during the past 12 months.

- **anyhhmember**: indicates whether there were any members in the respondent's household at the time he/she answered the survey as reported by the respondent.

- **hhmembernumber**: indicates the number of household members in the respondent's household at the time of the survey as reported by the respondent. It may be that 'anyhhmember' is 'Yes', but 'hhmembernumber' is missing if the respondent did not provide the number of household members at the time of the survey.

- **hhmemberin_#**: indicates whether a household member is currently in the household as reported by the respondent. Household members are never removed from the stored household roster and their information is always included in survey data sets. The order of the roster is the same order in which household members were specified by the respondent in the 'MyHousehold' survey. The order is identified by the suffix _# (e.g., _1 indicates the first household member, _2 the second household member, etc.).

  As an example, if the first household member is in the household at the time of the survey, 'hhmemberin_1' is set to '1 HH Member 1 is in the HH'; if he/she has moved out, 'hhmemberin_1' is set to '0 HH member 1 is no longer in the HH'. Since information of other household members (stored in the variables listed below) is always included in survey data sets, information about 'hhmemberin_1' is available whether this person is still in the household or has moved out.

- **hhmembergen_#**: indicates the gender of another household member as reported by the respondent.

- **hhmemberage_#**: indicates the age of another household member. The age is derived from the month and year of birth of the household member as reported by the respondent.

- **hhmemberrel_#**: indicates the relationship of the respondent to the other household member as reported by the respondent.

- **hhmemberuasid_#**: is the 'uasid' of the other household member if this person is also a UAS panel member. It is set to missing (.) if this person is not a UAS panel member at the time of the survey. Since this identifier is directly reported by the respondent (chosen from a preloaded list), it may differ from the actual (correct) 'uasid' of the UAS member it refers to because of reporting error. Also, this variable should not be used to identify UAS members in a given household at the time of the survey. This is because the variables 'hhmemberuasid_#' are taken from the most recent 'My Household' and changes in household composition involving UAS members may have occurred between the time of the respondent answered 'My Household' and the time the respondent answers the survey. To follow UAS members of a given household, it is advised to use the identifiers 'uashhid' and 'survhhid'.

- **lastmyhh_date**: the date on which the demographics variables were collected through the 'My Household' survey.

5 MISSING DATA CONVENTIONS

Data files provide so-called clean data, that is, answers given to questions that are not applicable anymore at survey completion (for example because a respondent went back in the survey and skipped over a previously answered question) are treated as if the questions were never asked. In the data files all questions that were asked, but not answered by the respondent are marked with (.e). All questions never seen by the respondent (or any dirty data) are marked with (.a). The latter may mean that a respondent did not view the question because s/he skipped over it; or alternatively that s/he never reached that question due to a break off. If a respondent did not complete a survey, the variables representing survey end date and time are marked with (.c). Household member variables are marked with (.m) if the respondent has less household members (e.g. if the number of household members is 2, any variables for household member 3 and up are marked with (.m).

UAS provides data in STATA and CSV format. Stata data sets come with include variable labels that are not available in the CSV files. Value labels are provided for single-response answer option. In STATA these labels will include the labels 'Not asked' and 'Not answered' for (.a) and (.e), and will show in tabulations such as 'tab q1, missing'. For multiple-response questions a binary variable is created for each answer option indicating whether the option was selected or not. A summary variable is also provided in string format reflecting which options were selected and in which order. For example, if a question asked about favorite animals with options cat, dog, and horse, then if a respondent selected horse and then cat, the binary variables for horse and cat will be set to yes, while the overall variable would have a string value of '3-1'. If no answer was given, all binary variables and the summary variable will be marked with '.e'.

Questions that are asked multiple times are often implemented as so-called array questions. Supposing the name of such question was Q1 and it was asked in 6 different instances, your data set would contain the variables Q1_1_ to Q1_6_. To illustrate, if a survey asked the names of all children, then child_1_ would contain the name of the first child the respondent named and so on.

More information about the UAS data in general can be found on the UAS Data Pages web site.

6 ROUTING SYNTAX

The survey with routing presented in the next section includes all of the questions that make up this survey, the question answers when choices were provided, and the question routing. The routing includes descriptions of when questions are grouped, conditional logic that determines when questions are presented to the respondent, randomization of questions and answers, and fills of answers from one question to another.

If you are unfamiliar with conditional logic statements, they are typically formatted so that ***if*** the respondent fulfills some condition (e.g. they have a cellphone or a checking account), ***then*** they are presented with some other question or the value of some variable is changed. If the respondent does not fulfill the condition (e.g. they are not a cellphone adopter or they do not have a checking account), something ***else*** happens such as skipping the next question or changing the variable to some other value. Some of the logic involved in the randomization of questions or answers being presented to the respondent is quite complex, and in these instances there is documentation to clarify the process being represented by the routing.

Because logic syntax standards vary, here is a brief introduction to our syntax standards. The syntax used in the conditional statements is as follows: '=' is equal to, '$<$' is less than, '$>$' is greater than, and '!=' is used for does not equal. When a variable is set to some number N, the statement looks like 'variable := N'.

The formatting of the questions and routing are designed to make it easier to interpret what is occurring at any given point in the survey. Question ID is the bold text at the top of a question block, followed by the question text and the answer selections. When a question or variable has associated data, the name links to the appropriate data page, so you can easily get directly to the data. Text color is used to indicate the routing: red is conditional logic, gold is question grouping, green is looping, and orange is used to document randomization and other complex conditional logic processes. The routing is written for a computer to parse rather than a human to read, so when the routing diverges significantly from what is displayed to the respondent, a screenshot of what the respondent saw is included.

The name of the randomization variables are defined in proximity to where they are put into play, and like the question ID the names of the randomization variables can be used to link directly to the associated data page.

7 SURVEY WITH ROUTING

/* This survey administered an experimental version of the BTAC stop-and-go game 1. The cognitive test was adapted to be administered both on devices with a keyboard and mouse (e.g., desktop or laptop computers) and on touchscreen-based devices (e.g., tablets or smartphones). For keyboard-based devices the interface responds to keys pressed on the keyboard or mouse clicks. For touchscreen-based devices the interface incorporates buttons for the possible answer keys, which, when pressed, simulate their respective keyboard or mouse counterparts' behavior.

Before the game was administered a device check was conducted in section Devicecheck. If respondents were assigned to a particular device order and an incorrect device was being used, respondents were warned but they could then still continue. Respondents without an assigned order could simply proceed to the game immediately.

At the beginning of the game, participants were given a brief introduction of the task. Practice trials were provided with feedback before the participants were asked to start the testing. They were also instructed to set aside uninterrupted time to complete the tasks.

Respondents were then asked to complete three tasks:

- A series of stop-and-go sequences in the normal condition in which respondents press "S" (for STOP) to "RED" and "G" (for GO) to "GREEN" (captured in the SW001 variables).
- A series of stop-and-go sequences in the reverse condition in which respondents press "G" (for GO) to "RED" and "S" (for STOP) to "GREEN" (captured in the SW002 variables).
- A series of stop-and-go sequences in the mixed condition in which instructions alternate between the normal and reverse condition (captured in the SW003 variables).

Note: practice trials were included prior to the start of each of the three tasks.
*/

Start of section **Devicecheck**

preload_condition := getUAS229Preload("condition")
onmobile_scan := isOnMobile()

IF preload_condition = RESPONSE THEN
  IF onmobile_scan IN (1,3) AND preload_condition = 1 THEN
    GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

onkeyboardconfirm (Confirm on device with keyboard in section Devicecheck)
Welcome and thanks for your interest in playing this game!

We would like you to do the first game **using your computer or laptop which uses a keyboard**. However, it looks like you are trying to do this survey on **a smartphone or a tablet without a keyboard**.

Are you using a computer or laptop which uses a keyboard right now?

1 Yes, I am using a computer or laptop which uses a keyboard right now
2 No, I am using a smartphone or a tablet without a keyboard right now

messages_keyboard (Section Devicecheck)
Great! Please click "Next" to continue.You cannot continue until you are using a computer or laptop which uses a keyboard. Please return to your UAS page by clicking here. Once you have returned to your UAS page, please log out of UAS on this device, and then log in again using your computer or laptop. Then start survey UAS216 again to return to this screen.

END OF GROUP

IF onkeyboardconfirm = 1 THEN
onmobile := 2
onmobileguess_incorrect := 1
END OF IF
ELSEIF onmobile_scan = 2 AND preload_condition = 2 THEN
GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

onmobileconfirm (Confirm on mobile device in section Devicecheck)
Welcome and thanks for your interest in playing this game!

We would like you to do the first game **using your smartphone or a tablet without a keyboard**. However, it looks like you are trying to do this survey on **a computer or laptop which uses a keyboard**.

Are you using a smartphone or a tablet without a keyboard right now?

1 Yes, I am using a smartphone or a tablet without a keyboard right now
2 No, I am using a computer or laptop which uses a keyboard right now

messages_mobile (Section Devicecheck)
Great! Please click "Next" to continue.You cannot continue until you are using a smartphone or tablet where you use your finger to tap the screen. Please return to your UAS page by clicking here. Once you have returned to your UAS page, please

log out of UAS on this device, and then log in again using your smartphone or tablet. Then start survey UAS216 again to return to this screen.

END OF GROUP

IF onmobileconfirm = 1 THEN
onmobile := 1
onmobileguess_incorrect := 1
END OF IF
ELSE
IF preload_condition = 1 THEN
GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

onkeyboardask (Ask on keyboard device in section Devicecheck)
Welcome and thanks for your interest in playing this game!

We would like you to do the first game using your **computer or laptop which uses a keyboard**.

Are you currently using a computer or laptop which uses a keyboard?
1 Yes, I am currently using a computer or laptop which uses a keyboard
2 No, I am currently using a smartphone or tablet without a keyboard

messages_keyboard (Section Devicecheck)
Great! Please click "Next" to continue.You cannot continue until you are using a computer or laptop which uses a keyboard. Please return to your UAS page by clicking here. Once you have returned to your UAS page, please log out of UAS on this device, and then log in again using your computer or laptop. Then start survey UAS216 again to return to this screen.

END OF GROUP

onmobile := 2
ELSEIF preload_condition = 2 THEN
GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

onmobileask (Ask on mobile device in section Devicecheck)
Welcome and thanks for your interest in playing this game!

We would like you to do the first game using **your smartphone or a tablet without a keyboard**.

Are you currently using a smartphone or a tablet without a keyboard?
1 Yes, I am currently using a smartphone or tablet without a keyboard

2 No, I am currently using a computer or laptop which uses a keyboard

messages_mobile (Section Devicecheck)
Great! Please click ”Next” to continue.You cannot continue until you are using a smartphone or tablet where you use your finger to tap the screen. Please return to your UAS page by clicking here. Once you have returned to your UAS page, please log out of UAS on this device, and then log in again using your smartphone or tablet. Then start survey UAS216 again to return to this screen.

END OF GROUP

onmobile := 1
END OF IF
END OF IF
ELSE
ondeviceask (Ask device in section Devicecheck)
Welcome and thanks for your interest in playing this game!

Before we get started could you please tell us what kind of device you are currently using?
1 I am currently using a computer or laptop which uses a keyboard
2 I am currently using a smartphone or tablet without a keyboard

IF ondeviceask = 1 THEN
onmobile := 2
ELSEIF ondeviceask = 2 THEN
onmobile := 1
END OF IF
END OF IF

End of section **Devicecheck**

Start of section **Btac**

timeout := 30000

IF onmobile = 1 THEN
sw001_intro_mobile (Section Btac)
Thank you!

In this game we would like to see how quickly you can respond to the words RED and GREEN. For this task, you will need to navigate using three buttons that will be located on the bottom of the screen. If possible, place one thumb on the S button and

one thumb on the G button.

The letter S means STOP. The letter G means GO. If you press Enter/Return while you can see the word RED or GREEN, you will skip to the next item.

Please click 'Next' to continue.

ELSE

sw001_intro (Section Btac)
Thank you!

In this game we would like to see how quickly you can respond to the words RED and GREEN. For this task, you will need to place your hands on the keyboard. If possible, place one finger on the letter S, one finger on the letter G, and one on the Enter or Return key.

The letter S means STOP. The letter G means GO. If you press Enter/Return while you can see the word RED or GREEN, you will skip to the next item.

Please click 'Next' to continue.

END OF IF

Fill code of question FL_keyboard executed

IF onmobile = 1 THEN

sw001_intro2_mobile (Section Btac)
For the first several items, if you see RED you will indicate STOP by pressing the S button. If you see GREEN you will choose GO by pressing the G button.

Please keep your hands on the buttons during this whole task. This will help you complete the task more quickly.

Try to be accurate, but respond as quickly as you can.

Please click "Next" to continue.

ELSE

sw001_intro2 (Section Btac)
For the first several items, if you see RED you will indicate STOP by pressing the letter S. If you see GREEN you will choose GO by pressing the letter G.

Please keep your hands on the keyboard during this whole task. This will help you complete the task more quickly.

Try to be accurate, but respond as quickly as you can.

Please click ”Next” to continue.
END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw001_example1 (Section Btac)
DEMONSTRATIONFor example, if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
RED
You should press the letter S. Please do this now. (SGEnter//)

sw001_example1_result (sw001 result example 1 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw001_example2 (Section Btac)
DEMONSTRATIONAnd if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
GREEN
You should press the letter G. Please do this now. (SGEnter//)

sw001_example2_result (sw001 result example 2 in section Btac)
STRING

END OF GROUP

sw001_intro3 (Section Btac)
Now you can try it. This first set will last about 1 minute. Please click ”Next” when you are ready to begin.

LOOP FROM 1 TO 10

Fill code of question FL_sw001(cnt) executed
Fill code of question FL_sw001_key(cnt) executed

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw001 (first trial in section Btac)
Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.

sw001_result (result first trial in section Btac)
STRING

END OF GROUP

END OF LOOP

sw002_intro2 (Section Btac)
DEMONSTRATIONNow you will do just the REVERSE of what you have been doing. So when you see RED you will press the letter G for ”go.” When you see GREEN you will press the letter S for ”stop.”

Try to be accurate, but answer as quickly as you can.

Please click ’Next’ to continue.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw002_example1 (Section Btac)
DEMONSTRATIONFor example, if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
RED
Because the rules are ”REVERSE,” you should press the letter G for ”go.” Please do this now. (SGEnter//)

sw002_example1_result (sw002 result example 1 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw002_example2 (Section Btac)
DEMONSTRATIONAnd if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
GREEN
You should press the letter S for ”stop.” Please do this now. (SGEnter//)

sw002_example2_result (sw002 result example 2 in section Btac)
STRING

END OF GROUP

sw002_intro3 (Section Btac)
Now you can try it. This set will last about 1 minute. Please click ”Next” when you are ready to begin.

LOOP FROM 1 TO 10

Fill code of question FL_sw002(cnt) executed
Fill code of question FL_sw002_key(cnt) executed

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw002 (second trial in section Btac)
Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.

sw002_result (result second trial in section Btac)
STRING

END OF GROUP

END OF LOOP

sw003_intro2 (Section Btac)
DEMONSTRATIONNow we are going to mix up these two types of responses. When you see the word NORMAL, you will respond the way you did at first: RED means ”stop” (S), GREEN means ”go” (G). But when you see the word REVERSE, you will give the reverse responses: RED means ”go” (G), GREEN means ”stop” (S).

We will alternate between the NORMAL and the REVERSE every few trials.

Try to be accurate, but answer as quickly as you can.

Please click ”Next” to continue.

sw003_intro3 (Section Btac)
DEMONSTRATIONCurrent rules:
NORMAL
Please click ”Next” to continue.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw003_example1 (Section Btac)
PRACTICESo if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
RED

You should press the letter S for ”stop.” This is because the last screen said ”NORMAL,” and this screen says ”RED.” Please do this now. (SGEnter//)

sw003_example1_result (sw003 result example 1 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw003_example2 (Section Btac)
PRACTICEAnd if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
GREEN
You should press the letter G for ”go.” This is because the rules screen said ”NORMAL,” and this screen says ”GREEN.” Please do this now. (SGEnter//)

sw003_example2_result (sw003 result example 2 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw003_example3 (Section Btac)
PRACTICEAnd if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
RED
You should press the letter S. Please do this now. (SGEnter//)

sw003_example3_result (sw003 result example 3 in section Btac)
STRING

END OF GROUP

sw003_intro4 (Section Btac)
DEMONSTRATIONCurrent rules:
REVERSE
Please click ”Next” to continue.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw004_example1 (Section Btac)
PRACTICESo if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
GREEN
You should press the letter S for ”stop.” This is because the last screen said ”REVERSE,” and this screen says ”GREEN.” Please do this now.(SGEnter//)

sw004_example1_result (sw004 result example 1 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw004_example2 (Section Btac)
PRACTICEOr if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
RED
You should press the letter G for ”go.” This is because the rules screen said ”REVERSE,” and this screen says ”RED.” Please do this now.(SGEnter//)

sw004_example2_result (sw004 result example 2 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw004_example3 (Section Btac)
PRACTICEOr if you see:

Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
RED
You should press the letter G for ”go.” Please do this now.(SGEnter//)

sw004_example3_result (sw004 result example 3 in section Btac)
STRING

END OF GROUP

sw004_intro1 (Section Btac)
Now, please try it a few times on your own.

Please press ”Next” to continue.

sw004_intro2 (Section Btac)
Current rules:
NORMAL
Please click ”Next” to continue.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw005_example1 (Section Btac)
Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
GREEN
(SGEnter//)

sw005_example1_result (sw005 result example 1 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw005_example2 (Section Btac)
Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
RED
(SGEnter//)

sw005_example2_result (sw005 result example 2 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw005_example3 (Section Btac)
Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
GREEN
(SGEnter//)

sw005_example3_result (sw005 result example 3 in section Btac)
STRING

END OF GROUP

sw005_intro2 (Section Btac)
Current rules:

REVERSE
Please click ”Next” to continue.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw006_example1 (Section Btac)
Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
GREEN
(SGEnter//)

sw006_example1_result (sw006 result example 1 in section Btac)
STRING

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw006_example2 (Section Btac)
Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.
RED
(SGEnter//)

sw006_example2_result (sw006 result example 2 in section Btac)
STRING

END OF GROUP

sw003_intro (Section Btac)
We are now ready to do a longer set. This will take about two minutes. Please click ”Next” when you are ready to begin.

LOOP FROM 1 TO 32

Fill code of question FL_sw003(cnt) executed
Fill code of question FL_sw003_color(cnt) executed
Fill code of question FL_sw003_key(cnt) executed

IF cnt IN (1,9,19,29) THEN

sw007_intro (Section Btac)
Current rules:
NORMAL
Please click ”Next” to continue.

ELSEIF cnt IN (4,15,24) THEN

sw007_intro_reverse (Section Btac)
Current rules:
REVERSE
Please click ”Next” to continue.

END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

sw003 (third trial in section Btac)
Press S for ”stop,” G for ”go,” or Enter/Return to skip to the next screen.

sw003_result (result third trial in section Btac)
STRING

END OF GROUP

END OF LOOP

End of section **Btac**

Start of section **Environment**

en001 (location in section Environment)
When you completed this survey were you (choose one)
1 At home / in the place where you live
2 At work
3 At school
4 In a public place (e.g. store, sidewalk, park, shops, restaurant, etc.)
5 Riding in a car or other form of transportation
6 Walking outside
7 Somewhere else

en002 (conditions in section Environment)
While you completed this survey were you also... (select all that apply)
1 Talking with other people
2 Listening to music or a book or a podcasts or radio
3 Watching television
4 Playing an online or handheld game (not this game)
5 Following YouTube, social media, online news, etc.
6 Texting, checking email
7 None of these

en003 (interruption in section Environment)
While you completed this survey were you ever interrupted (e.g. doorbell, phone call, text message, someone speaking to you, moving from one place to another) or did you complete the survey without interruption?
1 I was interrupted while completing the survey
2 I was not interrupted while completing the survey

End of section **Environment**

Start of section **Closing**

CS_003 (comments in section Closing)
Do you have any comments on the first game? Please type these in the box below. (If you have no comments, please click next to continue.)
STRING

IF preload_condition = 1 THEN
> **instructions_mobile** (Section Closing)
> Thank you for completing the first game!
>
> When you return to your UAS page, **log out of UAS on your current device and log back in using your tablet or smartphone without a keyboard**. You will see the link to start the second game in UAS217.

ELSEIF preload_condition = 2 THEN
> **instructions_keyboard** (Section Closing)
> Thank you for completing the first game!
>
> When you return to your UAS page, **log out of UAS on your current device and log back in using your desktop or laptop which uses a keyboard**. You will see the link to start the second game in UAS217.

ELSE
> **instructions** (Section Closing)
> Thank you for completing the first game!
>
> When you return to your UAS page, you will see the link to start the second game in UAS217.

END OF IF

dummy := selectForUAS217()

End of section **Closing**

/* Please note that although question CS_003 is listed in the routing, the answers are not included in the microdata in the event identifiable information is captured. Cleaned

```
responses are available by request. */
```