UnderStandingAmericaStudy

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1 INTRODUCTION

This UAS panel survey, titled "UAS 327: Figure ID Cognitive Test Game 1" is part of a randomization experiment which asked people to play the Figure ID game twice - once on a mobile device, and once on a computer that uses a keyboard. The game itself consists of choosing a matching figures out of a set of similar figures. This survey is currently in the field.

Related surveys are UAS326 (Baseline Figure ID Screener), and UAS 328 (Baseline Figure ID Game 2). This series was informed by the experimental versions of the Figure ID data collection (UAS288 baseline screener, UAS289 baseline game1, and UAS290 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 includes experiment(s) of the following type(s): Auxiliary Randomization. Please refer to explanatory comments in the Routing section for detailed information. 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:

Everyone.

As such, this survey has so far been made available to 8549 UAS participants. Of those 8549 participants, 8343 completed the survey and are counted as respondents. Of those who are not counted as respondents, 75 started the survey without completing and 131 did not start the survey. The preliminary overall response rate is 97.59%.

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:

UAS327 - Response Overview	
Size of selected sample	8549
Completed the survey	8343
Started but did not complete the survey	75
Did not start the survey	131
Response rate	97.59%

2.2   Timings

All reported timings and response rate statistics are as of May 20, 2022. The survey took respondents an average of 9 minutes, and the full distribution of survey response times is in the figure below. Times per question are available upon request.

Distribution of Respondents' Survey Response Times
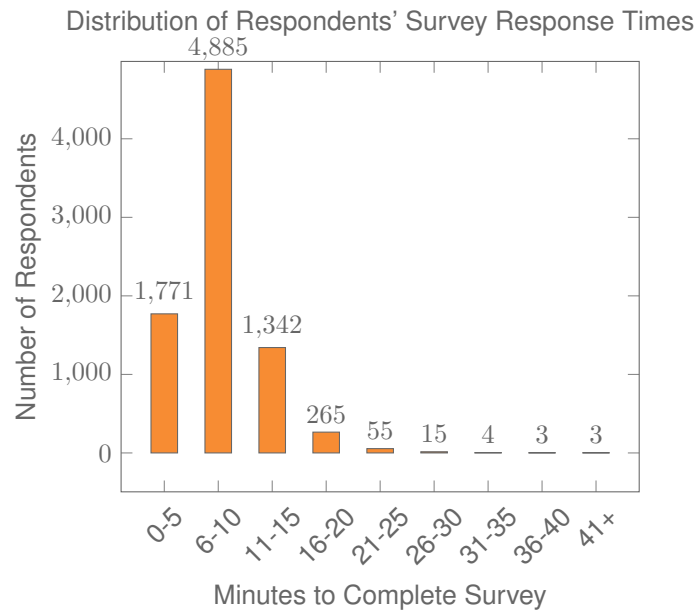
2.3 Weighting

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.

○ **sampletype**: 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 'sampletype' takes on three values reflecting three distinct recruitment categories (in future data sets the number of categories may increase due to the incorporation of new recruitment categories):

1. Nationally Representative Sample

2. Native Americans: recruited through ABS, where the probability of drawing a zip-code is a function of the percentage of Native Americans in the zip-code. Primary respondents in these zip-codes who are not Native Americans are not invited to join the UAS.

3. LA County: recruited through ABS drawing from zip-codes in Los Angeles County.

○ **batch**: indicates the batch from which the respondent was recruited. There are currently the following values this variable takes (in future data sets the number of categories may increase due to the usage of new recruitment samples):

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
27. MSG 2022/02 Nat. Rep. Batch 18

○ **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 in the survey due to a survey 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 can be found in the UAS Data Guide available 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 administers the Figure ID game 1. The cognitive test was designed to work on devices with a large screen (such as desktop or laptop computers) as well as for devices with a smaller screen (such as tablets or smart phones). Respondents selected an image by mouse or touch depending on the device.

Before the game was administered a device check was conducted. 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 (see the left panel in the figure below) followed by a demonstration (right panel). 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. The results are captured in the following variables:

- fig001_2_ and fig001_3_: contain the answer given. For the first example in fig001_2_ the correct answer is 3. For the second example in fig001_3_ the correct answer is 4.

- fig001_time_2_ and fig001_time_3_: contain the time spent in seconds.

Respondents were then asked to complete 60 figure identification tasks in random order per variables fig_order with values:

- 6 Figure 6

- ...

- 65 Figure 65

The raw results are captured in the following variables:

- fig001_6_ to fig001_65_: contain the answer given

- fig001_time_6_ to fig001_time_65_: contain the time spent in seconds.

- figscores_6_ to figscores_65_: contain the correctness of answers (1 = correct, 2 = incorrect).

Note: the results are stored independent of order. For example, independent of whether Figure 6 is presented as the 5th or 25th picture, its results are always stored in the _6_ variables.

Based on the raw results two scores are calculated: figID_score and second_figID_score.

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These scores contain the score calculated as the number of figures a respondent got correct within a time limit of 90 seconds for the first 30 and second 30 administered items.

Figures after the 90 second mark are neither considered correct nor incorrect for these scores. In this context the calculation looks at the cumulative time passed from item to item for each respondent, determines the 90 second mark and counts the number correct up to that time point.

The calculation also sets the score for the first 30 items/second 30 items to missing IF a respondent has less than 70% of the items in the set correct. Whether or not a respondent meets this threshold for the first and second 30 items is indicated in the variables figID_flag_correct and second_figID_flag_correct.

As such, the scores in figID_score and second_figID_score are primarily a measure of speed (that is, if respondents are fast, they will have more items completed within the 90 second limit) while taking accuracy into account (if they are fast and accurate, you will have more items correctly completed within the limit).

For completeness sake, the data set also contains variables that reflect the number of figures a respondent got correct independent of the 70% cut off (but taking the 90 seconds timie limit into account). Those are contained within variables figID_score_all and second_figID_score_all. It furthermore contains variables containing the number of correct figures independent of the 70% cut off or the 90 seconds time limit, being totalcorrect_first30items totalcorrect_second30items.

Figure 1: *Example screens*

*/

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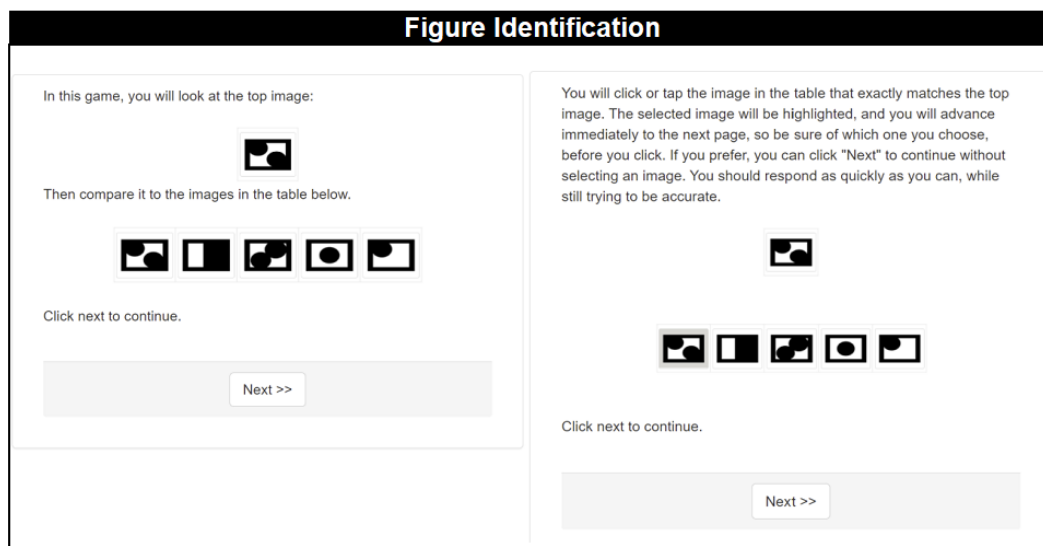
Start of section **Devicecheck**

preload_condition := getUAS326Preload("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 UAS327 again to return to this screen.

   onkeyboard_dh (dont have device with keyboard in section Devicecheck)
   1 **If you do not own a computer or laptop where you use a keyboard, please check this box:**

  END OF GROUP

  IF onkeyboardconfirm = 1 THEN
   onmobile := 2
   onmobileguess_incorrect := 1
  ELSEIF onkeyboard_dh = 1 THEN
   onmobile := 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 UAS327 again to return to this screen.

onmobile_dh (dont have device with mobile in section Devicecheck)
1 **If you do not own a smartphone or tablet where you use your finger or a stylus to tap the screen, please check this box**:

END OF GROUP

IF onmobileconfirm = 1 THEN
  onmobile := 1
  onmobileguess_incorrect := 1
ELSEIF onmobile_dh = 1 THEN
  onmobile := 2
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 UAS327 again to return to this screen.

onkeyboard_dh (dont have device with keyboard in section Devicecheck)
1 **If you do not own a computer or laptop where you use a keyboard, please check this box:**

IF onkeyboardask = 1 THEN
  onmobile := 2
  onmobileguess_incorrect := 2
ELSEIF onkeyboard_dh = 1 THEN
  onmobile := 1
END OF IF
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 UAS327 again to return to this screen.

onmobile_dh (dont have device with mobile in section Devicecheck)
1 **If you do not own a smartphone or tablet where you use your finger or a**

| **stylus to tap the screen, please check this box**:

END OF GROUP

IF onmobileask = 1 THEN
  onmobile := 1
  onmobileguess_incorrect := 1
ELSEIF onmobile_dh = 1 THEN
  onmobile := 2
END OF IF
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 **Figure**

IF onmobile = 1 THEN
  intro1_touch (intro in section Base)

  In this survey we will play a figure identification game. The next screen explains how. We hope you have fun with it!

  If you are using a phone or a tablet with a small screen to play this game, please turn it to a horizontal position. Reading glasses are recommended for those who wear them.
ELSE

intro1 (intro in section Base)

In this survey we will play a figure identification game. The next screen explains how. We hope you have fun with it!

fig_intro (Section Figure)
In this game, you will look at the top image:

Then compare it to the images in the table below.

Click next to continue.

fig_intro_second (Section Figure)
You will click or tap the image in the table that exactly matches the top image. The selected image will be highlighted, and you will advance immediately to the next page, so be sure of which one you choose, before you click. If you prefer, you can click "Next" to continue without selecting an image. You should respond as quickly as you can, while still trying to be accurate.

Click next to continue.

cnt := 2

fig001_example_intro (Section Figure)
Remember, when you click on the image in the table that matches the top image, you will immediately advance to the next page. Try it now!

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

fig001 (Section Figure)

fig001_time (time spent in section Figure)
STRING

END OF GROUP

correctseconds := round(fig001_time(cnt))

IF fig001(cnt) = 3 THEN
fig001_correct (Section Figure)
That is right! The correct answer is the third figure. It took you (seconds correct example 1()) seconds to select your response.

Click next to continue.

Fill code of question FLImage executed

fig001_incorrect (Section Figure)
No, the correct answer is the third figure. It took you (seconds correct example 1())
seconds to select your response.

Click next to continue.

END OF IF

cnt := 3

fig001_example_intro2 (Section Figure)
Let's try one more.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

fig001 (Section Figure)

fig001_time (time spent in section Figure)
STRING

END OF GROUP

correctseconds2 := round(fig001_time(cnt))

IF fig001(cnt) = 4 THEN

fig_intro2 (Section Figure)
That is right! The correct answer is the fourth figure. It took you (seconds correct
example 2()) seconds to select your response.

You are ready to start the game.

On each page, compare the top image to the table of images below, and click on
the one that is the exact match.

Remember to try to be accurate, but respond as quickly as you can.

Please click "Next" to continue.

ELSE
fig_intro2_incorrect (Section Figure)
No, the correct answer is the fourth figure. It took you (seconds correct example 2())
seconds to select your response.

You are ready to start the game.

On each page, compare the top image to the table of images below, and click on the one that is the exact match.

Remember to try to be accurate, but respond as quickly as you can.

Please click "Next" to continue.

END OF IF

totaltime := 0

IF sizeof(fig_order) = 0 THEN
  fig_order := getFigureOrderBins()
END OF IF

LOOP FROM 6 TO 65

  cnt := fig_order(tempcnt)

  GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

    fig001 (Section Figure)

    fig001_time (time spent in section Figure)
    STRING

  END OF GROUP

  dummy := getFigureScore("fig001(" . cnt . ")", cnt)
  totaltime := totaltime + round(fig001_time(cnt), 1)

END OF LOOP

End of section **Figure**

Start of section **Scoring**

totalcorrect := getFiguresCorrect()
averagetime := round(totaltime/60, 1)

End of section **Scoring**

Start of section **Feedback**

fe001 (figure clarity in section Feedback)
Aside from the ease or difficulty of matching up the figures in the game, how clearly or not clearly were you able see to the figures on your screen?

I could see the figures...
1 Very clearly
2 Not very clearly
3 Not clearly at all

fe002 (difficulty screen navigation in section Feedback)
How easy or difficult was it for you to navigate the screen on your device while playing the game, in terms of tapping, clicking, needing to scroll, etc.?
1 Very easy
2 Somewhat easy
3 Somewhat difficult
4 Very difficult

fe002a (experience with game in section Feedback)
Which of the following best fits your experience with playing the game on your device?
1 I often or always had to scroll or move the screen to be able to see all of the figures on the same screen
2 I sometimes had to scroll or move the screen to be able to see all of the figures on the same screen
3 All of the figures fit on the same screen but they were sometimes obscured by something else
4 All of the figures fit on the same screen with no technical difficulties

fe002b (other problem in section Feedback)
If you had some other problem with playing the game on your device that has not already been addressed, please briefly describe (or leave empty if not applicable):
STRING

IF onmobile = 1 THEN
  fe003 (screen device in section Feedback)
  How large is the screen on the device you used to play the game? If you aren't sure, you can just tell us the make and model of the phone or tablet you are using.
  STRING
END OF IF

End of section **Feedback**

Start of section **Environment**

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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**

dummy := completedFigures()

CS_003 (comments in section Closing)
Do you have any other comments on the interview? Please type these in the box below.(If you have no comments, please click next to complete this survey.)
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 UAS328.

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 UAS328.

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 UAS328.

END OF IF

dummy := selectForUAS328()

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. */