**Initialization**

**Participant**

* As a participant I can start the experiment as a hider / opener. Depends on the link that I used to direct to the experiment.
* As a participant I start the experiment with a participation fee.
  + As a hider I start with 1$.
  + As an opener I start with 1$.

**System**

* As a system I want to prevent user from doing the experiment more than once.
* As a system I want some of the participants to be hiders and some to be openers. There will be separate link for each room (rooms are : opener and hider). [to discuss rooms with Ido]

**Consent**

**Participant**

* As a participant I see the terms and conditions and bellow checkbox for accepting them.
* As a participant I can either accept or not accept the terms.

**System**

* As a system I want to prevent users that did not accept terms from proceeding to the next steps of the experiment. Send the participant to a termination page with the usual message and a request to ‘return’ the hit.
* As a system I want to navigate users who did accept the terms to the next app in the sequence.

**Data**

|  |  |  |
| --- | --- | --- |
| start\_time | end\_time | user\_accepted\_terms |
| Utc time | Utc time | True/False |

**Instructions**

**Participant**

* As a participant I see the instructions and click proceed in order to advance to the next page.

**Data**

|  |  |
| --- | --- |
| start\_time | end\_time |
| Utc time | Utc time |

**Test**

**Participant**

* As a participant I see a question into which I have to insert two values. After I press ‘next’ one of three things can happen:
* 1. I answered correctly – I am directed to the next stage (next question or the box-sets);
* 2. I made an error for the first time in this question – I receive and error message and is given the same question again;
* 3. I made an error a second time – I am redirected to a finish page with a suitable message (you are dropped from the study…’) and a request to ‘return’.
  + [[If I answer some question **incorrectly** I see an error message “Incorrect answer” below each question in which I have submitted wrong answer.
  + If I answer some questions **correctly** I see a success message “Correct Answer” below each question in which I have submitted correct answer.
  + I see a success/error message
  + I see advance/try again/failure message 🡪 You may click Proceed and advance to the next step. / Please try again. / Since you exceeded the amount of accepted attempts you are asked to exit the experiment. ]]

**Data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| start\_time | end\_time | q[x]\_attempts | did\_fail | number\_of\_attempts |
| Utc time | Utc time | {  correct : True/False  value : {  hider : number  opener: number  }  attempt\_number : number  } | boolean | number |

Start\_time | End\_time | question\_text | No of attempts (1 or 2)

**System**

* As a system I want to prevent from submitting more than twice.
* As a system I want to redirect the participant to next page / end page. Depends on his test result.

**Board**

**All Participants**

* This app has n rounds . Each round represents a set. A set is represented by a collection of boxes and their multipliers, as well as total number of objects:
  + An example for a set is 🡪 [1,2,3,4] , 48 .
* The order of the sets is shuffled for each participant. [we did not yet decide on the shuffling].

**Hider**

* As a hider I see some instructions for this step.
* As a hider I can see the number of objects in storage.
* As a hider I can see for each box – it’s multiplier with zero objects.
* As a hider I can see “back” and “next” buttons. both buttons are initially disabled.
* As a hider I ‘place’ objects in the boxes as I see fit. While doing so the number of objects in the storage goes down accordingly. Once the storage reaches zero I cannot add anything to a box.
* I am able to change the number of objects that are stored in each box by clicking on the current number of objects in the box and changing it to a different number.
* As a hider if I assigned to boxes more objects then the total amount available in the current set:
  + The storage will **not** show negative number but the last change I attempted will not be implemented.
  + An **error** message will appear “You have attempted to use more objects than you have”
  + The “**next**” button will still be disabled.
* As a hider If I assigned all objects to boxes and the number in storage is 0:
  + The “**next**” button will be **enabled**.
  + The “**back**” button will still be **disabled**.
* [[As a hider if I click the “back” button the board resets to its initial point.]]
* As a hider if I click next :
  + The amount of objects in each box is multiplied by the box multiplier.
  + A description message is displayed 🡪 The number in each box is now the value of the objects you assigned to it [after multiplication].
  + Now both the ‘next’ and the ‘back’ buttons are enabled; if I press ‘back’ I can start assigning objects to the boxes again; if I press the ‘next’ button I am advanced to the next step.
  + [A proceed message is displayed 🡪 You may click proceed and advance to the next step.
  + A Proceed button is displayed. Clicking it advances the participant to the next step. ?]

**Hider Data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| start\_time | end\_time | [round].set\_details | actions | box[n].final\_value |
| Utc time | Utc time | {  number\_of\_object : number  multipliers : [number]  } | {  box\_index : number  previous\_value : number  new\_value : number  } | number |

[below is an example}

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Start\_  time | end\_  time | set(n) total\_  objects | set(n)\_  multiplication | set(n)\_  objects | set(n)\_  values |
|  |  | 25 | 1,2,3,4 | 5,5,5,10 | 5.10.15,40 |

**[Up to here}**

**Opener**

* As a opener I see some instructions for this step.
* As an opener I can see the number of objects in storage.
* As an opener I can see for each box – it’s multiplier. Below each box I have a radio button for selecting / unselecting the box. The initial value for each box is unselected.
* As an opener I can see “back” and “next” buttons. “next” is initially disabled.
* As an opener if I click the “back” button the board resets to its initial point.
* As an opener if I mark exactly 2 boxes as selected:
  + The next button is enabled.
  + The back button is disabled.
* As an opener if I click next I’m being advanced to the next step.

**Opener Data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| start\_time | end\_time | [round].set\_details | actions | box[n].final\_value |
| Utc time | Utc time | {  number\_of\_object : number  multipliers : [number]  } | {  box\_index : number  previous\_value : boolean  new\_value : boolean  } | boolean |

**Feedback**

**Participant**

* As a participant I’m being asked an open ended question and I’m able to answer it by writing some text.

**System**

* As a system I want to validate that the participant did not leave an empty answer.

**Data**

|  |  |  |
| --- | --- | --- |
| start\_time | end\_time | answer |
| Utc time | Utc time | text |

**End**

**Participant**

* As a participant I am directed to this page if the experiment has ended successfully / unsuccessfully.
* As a participant I get an ending with failure/success message 🡪 The experiment has ended successfully / The experiment has ended .

participant

**Text**

**[] – hider**

**[] – opener**

**Consent**

Header : Consent

Content : [TODO]

Agree input : Yes, I agree to participate in the study

Do not agree input : No, I do not agree to participate in the study

**Instructions**

Header : Instructions

Content :

The game involves a number of boxes and a number of objects to be hidden in the boxes.  
Each box has a value by which the number of objects in the box is multiplied (the boxes’ multiplication rate).  
A Hider hides a pack of objects in the boxes and an Opener is entitled to open half of the boxes.  
Both Hider and Opener know the multiplication rate of each box.  
Here is in more detail:

TAB

You are a **Hider** having to hide your objects. You have four boxes in which you can hide them.  
Importantly, in some of the boxes the objects multiply.  
After hiding your objects another participant, an Opener, will grab/snatch two of the boxes. Whatever the Opener finds in those boxes the Opener gets; you get whatever remains in the boxes left.

A Hider hid objects in four boxes. Importantly, in some of the boxes the objects multiply.  
You are an **Opener**, allowed to grab/snatch two of those boxes. Whatever you find in these boxes you get; the Hider will get whatever remains in the boxes you left.

TAB

You will play the game three times with different sets of boxes.

Bottom of Form

Proceed button : Proceed

**Test**

Header : Test

Content :

Before you do let us make sure that you understand the game.  
Consider two boxes; box B2 multiplies its objects by 2; box B4 multiplies its objects by 4.  
The hider has 6 objects to hide.

Proceed button : Proceed

Exit button : Exit

NEXT\_PAGE

If the Hider puts all objects in B2 and the Opener opens box B4 how much will they get –  
The Hider \_\_\_ The Opener \_\_\_

Proceed button : Proceed

First incorrect message : Incorrect answer. You have 1 more attempt.

Second incorrect message : Incorrect answer. Since you exceeded the amount of accepted attempts you are asked to exit the experiment.

NEXT\_PAGE

If the Hider puts 2 objects in B2 and 4 objects in B4 and the Opener opens box B4 how much will they get –  
The Hider \_\_\_ The Opener \_\_\_

Proceed button : Proceed

First incorrect message : Incorrect answer. You have 1 more attempt.

Second incorrect message : Incorrect answer. Since you exceeded the amount of accepted attempts you are asked to exit the experiment.

NEXT\_PAGE

If the Hider puts, again, 2 objects in B2 and 4 objects in B4 and the Opener opens box B2 how much will they get –  
The Hider \_\_\_ The Opener \_\_\_ Bottom of Form

Proceed button : Proceed

First incorrect message : Incorrect answer. You have 1 more attempt.

Second incorrect message : Incorrect answer. Since you exceeded the amount of accepted attempts you are asked to exit the experiment.

NEXT\_PAGE

Fail message : Since you exceeded the amount of accepted attempts you are asked to exit the experiment

Success message : You have completed the test successfully. Please proceed to the next page.

**Board (hider)**

Content : [Todo]