

# User manual for Online-VAAST images

Please read carefully the instructions and follow the procedure described below step by step. Please note that you will need a number of files that are available in the section entitled “Reference files for the online-VAAST”.

## Step 1: Creating and adapting own version of the online-VAAST

1. Create a new experiment on Psytoolkit and call it “VAAST\_image”.
2. Copy/paste the Psytoolkit script provided below in the white box (SCRIPT 1).
3. Adapt instructions to participants to your own categories. To this aim, open the “To\_modify\_instructions.pptx” document and replace words in red by the names of your categories (e.g., “positive images”/“negative images”). Save all the slides in JPG format. Rename each slide “instruction1”, “instruction2”, “instruction3”, etc.
4. Upload the backgrounds (i.e., five images: startBackgr, apBackgr, avBackgr, prefixation and fixation) and the ten instruction slides in your Psytoolkit experiment. Don’t forget to save the experiment after having uploaded images.
5. Prepare your own 50 images. To this aim, you have to prepare 3 versions of the same image: one starting image (size 350x263ppi), one image for approach (size 420x315ppi) and one image for avoidance (size 280x210ppi). In total, you will have 150 images.

WARNING: Starting images must be called catA1.JPG, catA2.JPG, catA3.JPG etc. for category A and catB1.JPG, catB2.JPG, catB3.JPG etc. for category B. Approach images must be called catA1ap.JPG, catA2ap.JPG, catA3ap.JPG etc. for category A and catB1ap.JPG, catB2ap.JPG, catB3ap.JPG etc. for category B. Avoidance images must be called catA1av.JPG, catA2av.JPG, catA3av.JPG etc. for category A and catB1av.JPG, catB2av.JPG, catB3av.JPG etc. for category B (note that capital letters matters). Please look at Script 1 below for more details.

6. Upload your 150 images in your Psytoolkit experiment. Don’t forget to save the experiment after having uploaded images.
7. Compile the experiment.

## Step 2: Creating a survey with embedded version of the online-VAAST.

Creating a survey allows adding questions such as demographics, questionnaires etc.

1. Create a new survey.
2. Copy/paste the Psytoolkit script provided below in the white box (SCRIPT 2).
3. Complete all the sections required on the page of your survey. Please read the “Help” section of Psytoolkit if you have any problem to complete the survey options.

WARNING: In the “Optional requirements for the computer of the participants” section, check “This study requires a real keyboard”. In the “Optional Browser exclusion”, check “Exclude mobile phone and tablet users” and “Exclude Safari use” (requirement of Psytoolkit).

4. SAVE and only after having saved, compile the survey. Then, in the “Survey Status” section, check “Should this survey be online accessible?” (if you don’t check it, you will not have a link) and validate by clicking on “change the survey status”.

### **Step 3: Collecting data.**

1. Share the link of your survey to participants.

### **Step 4: Downloading and preparing participant data.**

1. In the “Prepare and download participant data” section of your survey, click on “Prepare datafiles for download”. Then, click on “download data in zip file”. If there are many datafiles, preparation can take several minutes.
2. Open the data.zip file. For each participant, you will have a data file containing all the data information from the PsyToolkit experiment (i.e., files beginning by the name of the experiment created on PsyToolkit as “VAAST\_image”) and a data file containing the technical information from the PsyToolkit survey (i.e., files beginning by “s.”). The file named “data” contains participants’ responses to your survey (e.g., demographic information). The file “data\_times” contains redundant information and will not be used.
3. Copy/paste all the data in a folder called “raw\_data”.
4. Open the R script called “ReadPsyToolkit.R”. Please note that we created our R scripts by using R studio, thus some of the R command might need re-adjustments to be used in R. We recommend using R studio to run R scripts.

WARNING: Before running R scripts, the “data” file (from the “raw\_data” folder) have to be in a csv format with “;” as sep. Otherwise, the file cannot be loaded in R studio. R scripts and “raw\_data” folder have to be at the same level (i.e., in the same folder).

5. Once you checked these points, you will be able to run the “readPsytoolkit.R” script. At the end of the script, you will be able to register the merged file in either a csv format (in the “raw\_data” folder) or in a Rdata format. Only the Rdata file will be used in main data analysis (i.e., in the R script “R\_Script\_to\_analyze\_data\_Online-VAAST”), the other file being for possible data analysis via another software.

**Step 5: Analyzing data.**

1. To perform the main data analysis, you will need the R script called “R\_Script\_to\_analyze\_data\_Online-VAAST” and the “data\_VAAST” file created before. Both files have to be in the same folder.
2. Open the R script and run it.
3. Enjoy your results!

# Psytoolkit scripts

---

## SCRIPT 1: TO COPY/PASTE in the box of your new experiment

options

```
set &iti 750 # inter trial interval (ITI)
fullscreen
resolution 1200 675 # minimum resolution screen needed
```

bitmaps

```
startBackgr startBackgr.jpg # starting background
apBackgr apBackgr.jpg # approach background
avBackgr avBackgr.jpg # avoidance background
prefix prefixation.jpg
fix fixation.jpg
instr1 instruction1.JPG
instr2 instruction2.JPG
instr3 instruction3.JPG
instr4 instruction4.JPG
instr5 instruction5.JPG
instr6 instruction6.JPG
instr7 instruction7.JPG
instr8 instruction8.JPG
instr9 instruction9.JPG
instr10 instruction10.JPG
```

# Replace "catA1.JPG", "catA2.JPG", "catA3.JPG" etc. by the name of your images.

# Warning: ".JPG" have to be in capital letters

# STARTING IMAGES

# Starting images for training trials

```
image1    catA1.JPG
image2    catA2.JPG
image3    catA3.JPG
image4    catA4.JPG
image5    catA5.JPG
image6    catB1.JPG
image7    catB2.JPG
image8    catB3.JPG
image9    catB4.JPG
image10   catB5.JPG
```

# Starting images for test trials

```
image11   catA6.JPG
image12   catA7.JPG
image13   catA8.JPG
```

image14 catA9.JPG  
image15 catA10.JPG  
image16 catA11.JPG  
image17 catA12.JPG  
image18 catA13.JPG  
image19 catA14.JPG  
image20 catA15.JPG  
image21 catA16.JPG  
image22 catA17.JPG  
image23 catA18.JPG  
image24 catA19.JPG  
image25 catA20.JPG  
image26 catA21.JPG  
image27 catA22.JPG  
image28 catA23.JPG  
image29 catA24.JPG  
image30 catA25.JPG  
image31 catB6.JPG  
image32 catB7.JPG  
image33 catB8.JPG  
image34 catB9.JPG  
image35 catB10.JPG  
image36 catB11.JPG  
image37 catB12.JPG  
image38 catB13.JPG  
image39 catB14.JPG  
image40 catB15.JPG  
image41 catB16.JPG  
image42 catB17.JPG  
image43 catB18.JPG  
image44 catB19.JPG  
image45 catB20.JPG  
image46 catB21.JPG  
image47 catB22.JPG  
image48 catB23.JPG  
image49 catB24.JPG  
image50 catB25.JPG

#### # APPROACH IMAGES

# Approach images for training trials

image1ap catA1ap.JPG  
image2ap catA2ap.JPG  
image3ap catA3ap.JPG  
image4ap catA4ap.JPG  
image5ap catA5ap.JPG  
image6ap catB1ap.JPG  
image7ap catB2ap.JPG  
image8ap catB3ap.JPG

image9ap catB4ap.JPG  
image10ap catB5ap.JPG  
#approach images for test trials  
image11ap catA6ap.JPG  
image12ap catA7ap.JPG  
image13ap catA8ap.JPG  
image14ap catA9ap.JPG  
image15ap catA10ap.JPG  
image16ap catA11ap.JPG  
image17ap catA12ap.JPG  
image18ap catA13ap.JPG  
image19ap catA14ap.JPG  
image20ap catA15ap.JPG  
image21ap catA16ap.JPG  
image22ap catA17ap.JPG  
image23ap catA18ap.JPG  
image24ap catA19ap.JPG  
image25ap catA20ap.JPG  
image26ap catA21ap.JPG  
image27ap catA22ap.JPG  
image28ap catA23ap.JPG  
image29ap catA24ap.JPG  
image30ap catA25ap.JPG  
image31ap catB6ap.JPG  
image32ap catB7ap.JPG  
image33ap catB8ap.JPG  
image34ap catB9ap.JPG  
image35ap catB10ap.JPG  
image36ap catB11ap.JPG  
image37ap catB12ap.JPG  
image38ap catB13ap.JPG  
image39ap catB14ap.JPG  
image40ap catB15ap.JPG  
image41ap catB16ap.JPG  
image42ap catB17ap.JPG  
image43ap catB18ap.JPG  
image44ap catB19ap.JPG  
image45ap catB20ap.JPG  
image46ap catB21ap.JPG  
image47ap catB22ap.JPG  
image48ap catB23ap.JPG  
image49ap catB24ap.JPG  
image50ap catB25ap.JPG  
# AVOIDANCE IMAGES  
# Avoidance images for training trials  
image1av catA1av.JPG  
image2av catA2av.JPG

image3av catA3av.JPG  
image4av catA4av.JPG  
image5av catA5av.JPG  
image6av catB1av.JPG  
image7av catB2av.JPG  
image8av catB3av.JPG  
image9av catB4av.JPG  
image10av catB5av.JPG

# Avoidance images for test trials

image11av catA6av.JPG  
image12av catA7av.JPG  
image13av catA8av.JPG  
image14av catA9av.JPG  
image15av catA10av.JPG  
image16av catA11av.JPG  
image17av catA12av.JPG  
image18av catA13av.JPG  
image19av catA14av.JPG  
image20av catA15av.JPG  
image21av catA16av.JPG  
image22av catA17av.JPG  
image23av catA18av.JPG  
image24av catA19av.JPG  
image25av catA20av.JPG  
image26av catA21av.JPG  
image27av catA22av.JPG  
image28av catA23av.JPG  
image29av catA24av.JPG  
image30av catA25av.JPG  
image31av catB6av.JPG  
image32av catB7av.JPG  
image33av catB8av.JPG  
image34av catB9av.JPG  
image35av catB10av.JPG  
image36av catB11av.JPG  
image37av catB12av.JPG  
image38av catB13av.JPG  
image39av catB14av.JPG  
image40av catB15av.JPG  
image41av catB16av.JPG  
image42av catB17av.JPG  
image43av catB18av.JPG  
image44av catB19av.JPG  
image45av catB20av.JPG  
image46av catB21av.JPG  
image47av catB22av.JPG  
image48av catB23av.JPG

image49av catB24av.JPG  
image50av catB25av.JPG

#### fonts

myfont arial 60  
myfontap arial 68  
myfontav arial 52

#### table trainingTrials

startBackgr	apBackgr	avBackgr	image1	image1ap	image1av	1
startBackgr	apBackgr	avBackgr	image2	image2ap	image2av	1
startBackgr	apBackgr	avBackgr	image3	image3ap	image3av	1
startBackgr	apBackgr	avBackgr	image4	image4ap	image4av	1
startBackgr	apBackgr	avBackgr	image5	image5ap	image5av	1
startBackgr	apBackgr	avBackgr	image6	image6ap	image6av	2
startBackgr	apBackgr	avBackgr	image7	image7ap	image7av	2
startBackgr	apBackgr	avBackgr	image8	image8ap	image8av	2
startBackgr	apBackgr	avBackgr	image9	image9ap	image9av	2
startBackgr	apBackgr	avBackgr	image10	image10ap	image10av	2

#### table testTrials

startBackgr	apBackgr	avBackgr	image11	image11ap	image11av	1
startBackgr	apBackgr	avBackgr	image12	image12ap	image12av	1
startBackgr	apBackgr	avBackgr	image13	image13ap	image13av	1
startBackgr	apBackgr	avBackgr	image14	image14ap	image14av	1
startBackgr	apBackgr	avBackgr	image15	image15ap	image15av	1
startBackgr	apBackgr	avBackgr	image16	image16ap	image16av	1
startBackgr	apBackgr	avBackgr	image17	image17ap	image17av	1
startBackgr	apBackgr	avBackgr	image18	image18ap	image18av	1
startBackgr	apBackgr	avBackgr	image19	image19ap	image19av	1
startBackgr	apBackgr	avBackgr	image20	image20ap	image20av	1
startBackgr	apBackgr	avBackgr	image21	image21ap	image21av	1
startBackgr	apBackgr	avBackgr	image22	image22ap	image22av	1
startBackgr	apBackgr	avBackgr	image23	image23ap	image23av	1
startBackgr	apBackgr	avBackgr	image24	image24ap	image24av	1
startBackgr	apBackgr	avBackgr	image25	image25ap	image25av	1
startBackgr	apBackgr	avBackgr	image26	image26ap	image26av	1
startBackgr	apBackgr	avBackgr	image27	image27ap	image27av	1
startBackgr	apBackgr	avBackgr	image28	image28ap	image28av	1
startBackgr	apBackgr	avBackgr	image29	image29ap	image29av	1
startBackgr	apBackgr	avBackgr	image30	image30ap	image30av	1
startBackgr	apBackgr	avBackgr	image31	image31ap	image31av	2
startBackgr	apBackgr	avBackgr	image32	image32ap	image32av	2
startBackgr	apBackgr	avBackgr	image33	image33ap	image33av	2



startBackgr	apBackgr	avBackgr	image34	image34ap	image34av	2
startBackgr	apBackgr	avBackgr	image35	image35ap	image35av	2
startBackgr	apBackgr	avBackgr	image36	image36ap	image36av	2
startBackgr	apBackgr	avBackgr	image37	image37ap	image37av	2
startBackgr	apBackgr	avBackgr	image38	image38ap	image38av	2
startBackgr	apBackgr	avBackgr	image39	image39ap	image39av	2
startBackgr	apBackgr	avBackgr	image40	image40ap	image40av	2
startBackgr	apBackgr	avBackgr	image41	image41ap	image41av	2
startBackgr	apBackgr	avBackgr	image42	image42ap	image42av	2
startBackgr	apBackgr	avBackgr	image43	image43ap	image43av	2
startBackgr	apBackgr	avBackgr	image44	image44ap	image44av	2
startBackgr	apBackgr	avBackgr	image45	image45ap	image45av	2
startBackgr	apBackgr	avBackgr	image46	image46ap	image46av	2
startBackgr	apBackgr	avBackgr	image47	image47ap	image47av	2
startBackgr	apBackgr	avBackgr	image48	image48ap	image48av	2
startBackgr	apBackgr	avBackgr	image49	image49ap	image49av	2
startBackgr	apBackgr	avBackgr	image50	image50ap	image50av	2

# tasks for training phase

```

task trainingCatAAp
table trainingTrials
keys n y h
show bitmap prefix
readkey 3 500000
set &key1 KEY
set &randomfix random 800 2000 100
show bitmap fix
delay &randomfix
show bitmap @1
show bitmap @4
set &trialNb increase
readkey 2 300000
set &key2 KEY
clear -1
### feedback
if @7 == 2 and &key2 == 1
  set &acc 1
  show bitmap @3
  show bitmap @6
  delay 500
  clear -1
fi
if @7 == 1 and &key2 == 1
  set &acc 0
  show bitmap startBackgr

```

```
font myfont
show text "ERROR!" 0 0 255 0 0
delay 500
clear -1
fi
if @7 == 1 and &key2 == 2
set &acc 1
show bitmap @2
show bitmap @5
delay 500
clear -1
fi
if @7 == 2 and &key2 == 2
set &acc 0
show bitmap startBackgr
font myfont
show text "ERROR!" 0 0 255 0 0
delay 500
clear -1
fi
if &key2 == 3
set &acc 0
show bitmap startBackgr
font myfont
show text "ERROR!" 0 0 255 0 0
delay 500
clear -1
fi
delay &iti
save BLOCKORDER BLOCKNAME @4 @7 &randomfix &key1 &key2 &acc RT
```

```
task trainingCatBAp
table trainingTrials
keys n y h
show bitmap prefix
readkey 3 500000
set &key1 KEY
set &randomfix random 800 2000 100
show bitmap fix
delay &randomfix
show bitmap @1
show bitmap @4
set &trialNb increase
readkey 2 300000
set &key2 KEY
clear -1
```

```
### feedback
if @7 == 1 and &key2 == 1
  set &acc 1
  show bitmap @3
  show bitmap @6
  delay 500
  clear -1
fi
if @7 == 2 and &key2 == 1
  set &acc 0
  show bitmap startBackgr
  font myfont
  show text "ERROR!" 0 0 255 0 0
  delay 500
  clear -1
fi
if @7 == 2 and &key2 == 2
  set &acc 1
  show bitmap @2
  show bitmap @5
  delay 500
  clear -1
fi
if @7 == 1 and &key2 == 2
  set &acc 0
  show bitmap startBackgr
  font myfont
  show text "ERROR!" 0 0 255 0 0
  delay 500
  clear -1
fi
if &key2 == 3
  set &acc 0
  show bitmap startBackgr
  font myfont
  show text "ERROR!" 0 0 255 0 0
  delay 500
  clear -1
fi
delay &iti
save BLOCKORDER BLOCKNAME @4 @7 &randomfix &key1 &key2 &acc RT
```

# tasks for test phase

task testCatAAp

```
table testTrials
keys n y h
show bitmap prefix
readkey 3 500000
set &key1 KEY
set &randomfix random 800 2000 100
show bitmap fix
delay &randomfix
show bitmap @1
show bitmap @4
set &trialNb increase
readkey 2 300000
set &key2 KEY
clear -1
### feedback
if @7 == 2 and &key2 == 1
  set &acc 1
  show bitmap @3
  show bitmap @6
  delay 500
  clear -1
fi
if @7 == 1 and &key2 == 1
  set &acc 0
  show bitmap @3
  show bitmap @6
  delay 500
  clear -1
fi
if @7 == 1 and &key2 == 2
  set &acc 1
  show bitmap @2
  show bitmap @5
  delay 500
  clear -1
fi
if @7 == 2 and &key2 == 2
  set &acc 0
  show bitmap @2
  show bitmap @5
  delay 500
  clear -1
fi
if &key2 == 3
  set &acc 0
  show bitmap startBackgr
  font myfont
```

```
show text "ERROR!" 0 0 255 0 0
delay 500
clear -1
fi
delay &iti
save BLOCKORDER BLOCKNAME @4 @7 &randomfix &key1 &key2 &acc RT
```

```
task testCatBAp
table testTrials
keys n y h
show bitmap prefix
readkey 3 500000
set &key1 KEY
set &randomfix random 800 2000 100
show bitmap fix
delay &randomfix
show bitmap @1
show bitmap @4
set &trialNb increase
readkey 2 300000
set &key2 KEY
clear -1
### feedback
if @7 == 2 and &key2 == 2
  set &acc 1
  show bitmap @2
  show bitmap @5
  delay 500
  clear -1
fi
if @7 == 1 and &key2 == 2
  set &acc 0
  show bitmap @2
  show bitmap @5
  delay 500
  clear -1
fi
if @7 == 1 and &key2 == 1
  set &acc 1
  show bitmap @3
  show bitmap @6
  delay 500
  clear -1
fi
if @7 == 2 and &key2 == 1
  show bitmap @3
```

```
show bitmap @6
delay 500
clear -1
fi
if &key2 == 3
set &acc 0
show bitmap startBackgr
font myfont
show text "ERROR!" 0 0 255 0 0
delay 500
clear -1
fi
delay &iti
save BLOCKORDER BLOCKNAME @4 @7 &randomfix &key1 &key2 &acc RT
```

# Blocks

```
block instructions
  bitmap instr1
  wait_for_key
  bitmap instr2
  wait_for_key
  bitmap instr3
  wait_for_key
end
```

```
block blkTrainingCatAAp
  bitmap instr4
  wait_for_key
  bitmap instr5
  wait_for_key
  tasklist
  trainingCatAAp 10 all_before_repeat #You can change the number of training trials.
end
  bitmap instr6
  wait_for_key
end
```

```
block blkTestCatAAp
  tasklist
  testCatAAp 40 all_before_repeat #You can change the number of test trials.
end
```

```
block blkTrainingCatBAp
  bitmap instr7
  wait_for_key
  bitmap instr5
```

```
wait_for_key
tasklist
  trainingCatBAp 10 all_before_repeat #You can change the number of training trials.
end
bitmap instr8
wait_for_key
end
```

```
block blkTestCatBAp
  tasklist
    testCatBAp 40 #You can change the number of test trials.
  end
```

```
block change
  bitmap instr9
  wait_for_key
end
```

```
block end
  bitmap instr10
  wait_for_key
end
```

# Block orders

```
blockorder
  instructions
  blkTrainingCatAAp
  blkTestCatAAp
  change
  blkTrainingCatBAp
  blkTestCatBAp
end
```

```
blockorder
  instructions
  blkTrainingCatBAp
  blkTestCatBAp
  change
  blkTrainingCatAAp
  blkTestCatAAp
end
```

## **SCRIPT 2: TO COPY/PASTE in the box of your new survey**

l: vaast\_oasis  
t: experiment  
- {fullscreen} VAAST\_image

l: language #OPTIONAL  
t: radio  
o: require  
q: What is your native language?  
- English  
- Other

l: gender  
t: radio  
q: What is your gender?  
- Male  
- Female  
- Other

l: age  
t: textline  
q: How old are you?  
- your age

l: comment  
t: textbox  
q: Do you have any comments on the study? Feel free to leave your comments on the functioning of the study, the possible technical problems, etc.  
- Enter your comments