OCS+

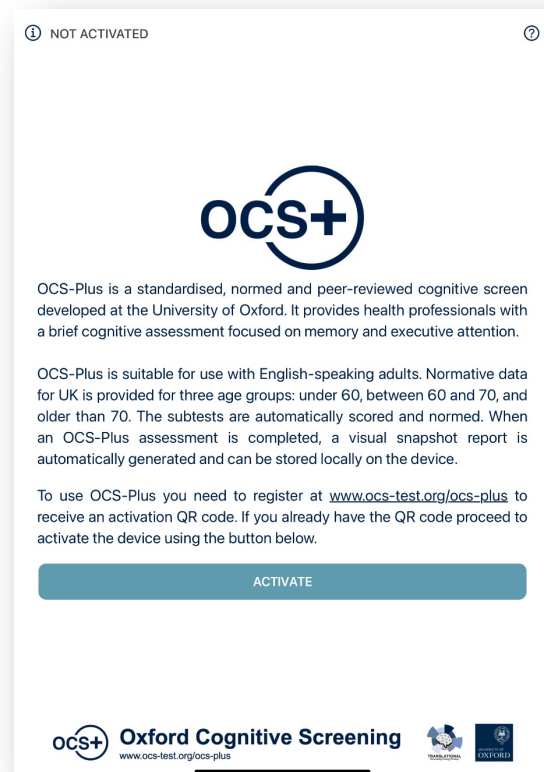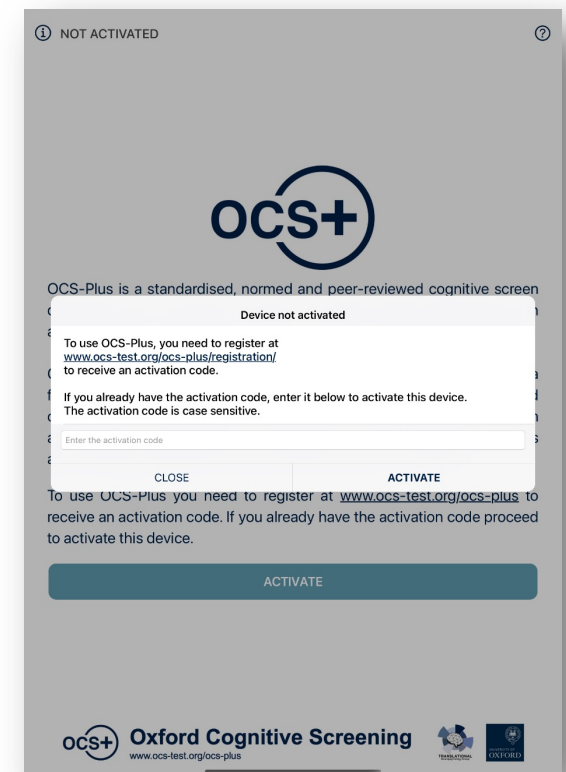## USER GUIDE

Activating your device

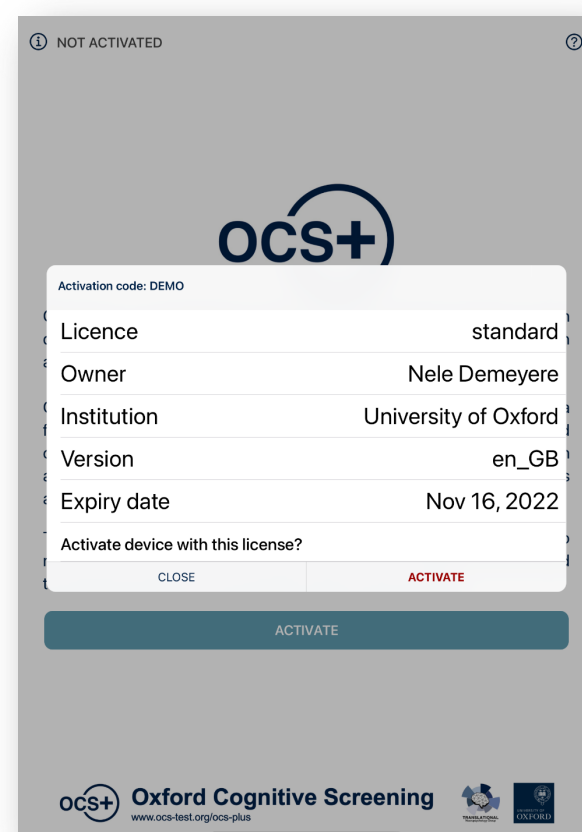Use the activation code sent to you to activate your device

Device not activated
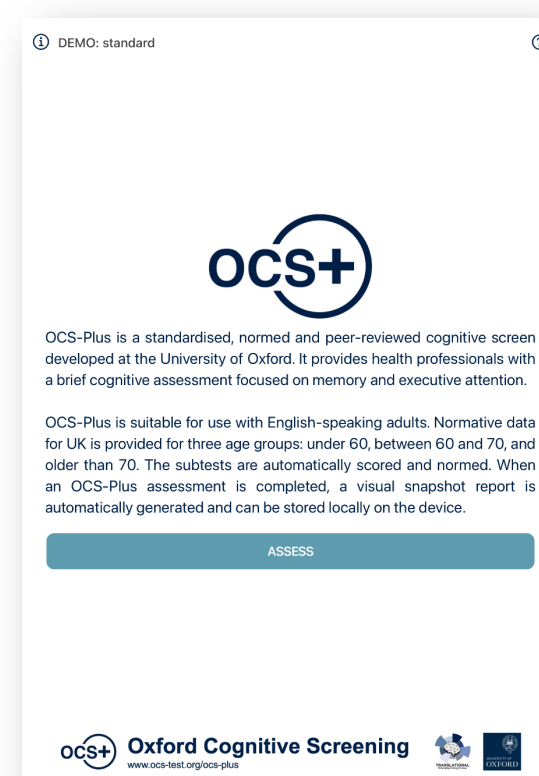
Initiate activation

Enter the activation code

Activation licence

Device activated

You can now run assessments

Starting an assessment

Enter the **ID** of the respondent

Enter the **age** of the respondent – used to normalize the task scores

Start the assessment when ready

Go back to home screen

Access the User Guide

Enter the ID for the respondent

Enter the age of the respondent

Assessment info

Respondent ID
This identifier should be a unique respondent code which does not contain any identifiable information. It is your responsibility to ensure all ethical protocols and data protection regulations are adhered to.

Enter respondent ID here

Respondent age
This will be used to select the age appropriate normative cut-offs for the report.

Enter respondent age here

age classified as

START ASSESSMENT

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DEMO: standard

Under the standard user licence respondents' cognitive data cannot be uploaded and only a local copy of the assessment and its accompanying visual snapshot report are stored on the device. The respondent's performance is compared to normative cut-offs within the local version of the app. At the end of the assessment, the assessor is presented with a graphical summary of performance, which can be saved as an image locally and then printed/emailed/shared by the assessor via their professional accounts. Only up to 8 local sessions can be saved at any time. Further assessments require deleting previously stored local assessments within the app. If you require the data to be saved or uploaded, please request a RESEARCH licence. For this, or any other questions or issues with downloading or registering on the OCS-Plus app, please contact us on ocsplus@psy.ox.ac.uk.

PROCEED

Confirm you agree with the **privacy notice**

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Instruction screens

Each task starts with an instructions screen

Do not show the instruction screens to the respondent

Read out the instructions displayed in the middle

Remind yourself of the task with assessor instructions at the bottom

Tap **START** when ready for the task

ID of the respondent →

▷▷ Tap to skip a task

❙❙ Tap to pause the assessment

Show the next task screens to respondent when this is displayed 👁

Do not show the next task screens to respondent when this is displayed 🚫👁

Stylus recommended for this task ✏

Tablet screen content:

PRACTICE ② ▷▷

👁 PICTURE NAMING TEST 1/12

You will see a series of pictures on this screen. Your task is to tell me what each one is.

START

Show each picture on the screen to the respondent and ask them to name it.
Use the buttons at the top to score their answer:
✓ *CORRECT answer*
× *WRONG answer or NO answer*

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For respondent - read out loud

Only for you

PICTURE NAMING   TEST 1/12

You will see a series of pictures on this screen. Your task is to tell me what each one is.

START

Show each picture on the screen to the respondent and ask them to name it.
Use the buttons at the top to score their answer:
✓ CORRECT answer
✗ WRONG answer or NO answer

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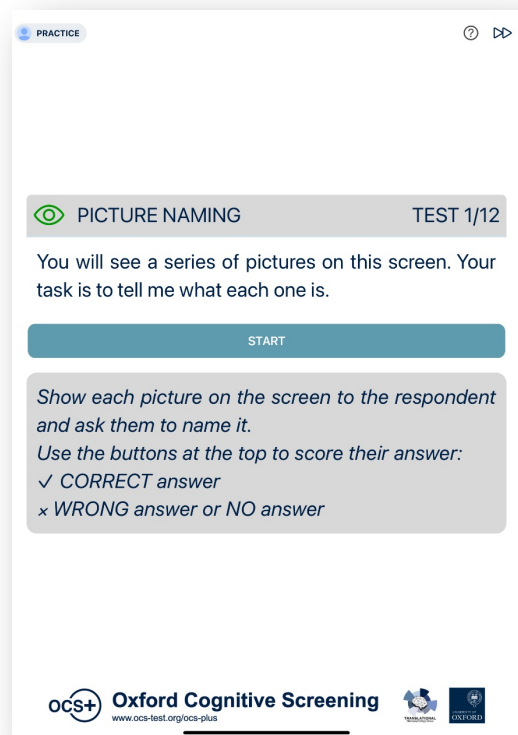
PICTURE NAMING
- **you** score the answers -

👁 **Show** *the task screens to the respondent*
***Read out** the question at the top*
***Score** the accuracy of the respondent answer*

Respondent gives their answers **unaided**.

✗ Tap this for **wrong** or **no answer**

✓ Tap this for **correct** answer
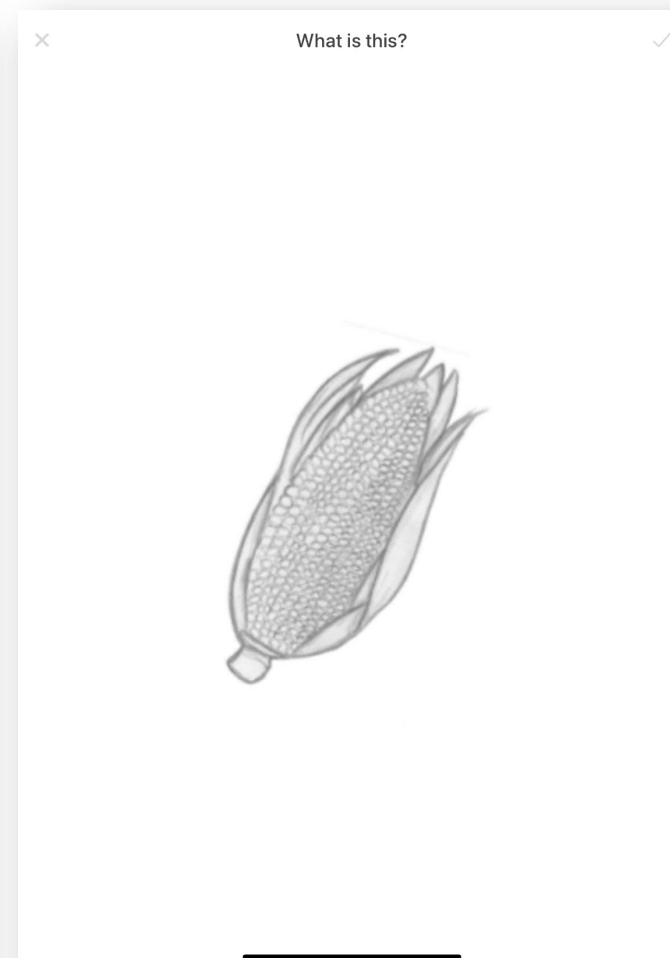
What is this?

What is this?

What is this?

What is this?
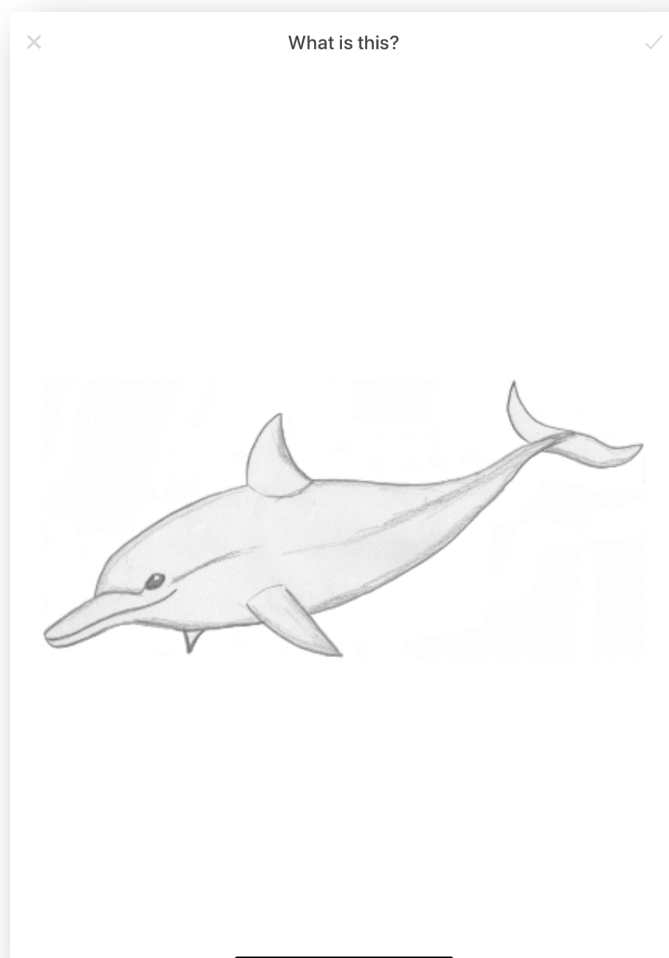
Correct answer: **dolphin**
Acceptable answers:
bottle nose dolphin

Correct answer: **kangaroo**
Acceptable answers:
wallaby

Correct answer: **corn cob**
Acceptable answers:
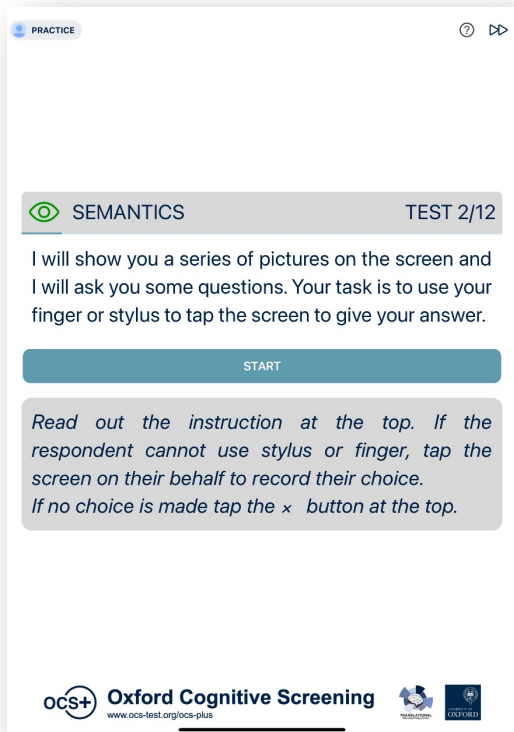*corn, corn on the cob*

Correct answer: **cherries**
Acceptable answers:
pair of cherries, 2 cherries

Example wrong answers:
fish, whale

Example wrong answers:
animal, rabbit

Example wrong answers:
*tulip, flower bud*

Example wrong answers:
fruit, apples

SEMANTICS   TEST 2/12

I will show you a series of pictures on the screen and I will ask you some questions. Your task is to use your finger or stylus to tap the screen to give your answer.

START

Read out the instruction at the top. If the respondent cannot use stylus or finger, tap the screen on their behalf to record their choice.
If no choice is made tap the × button at the top.

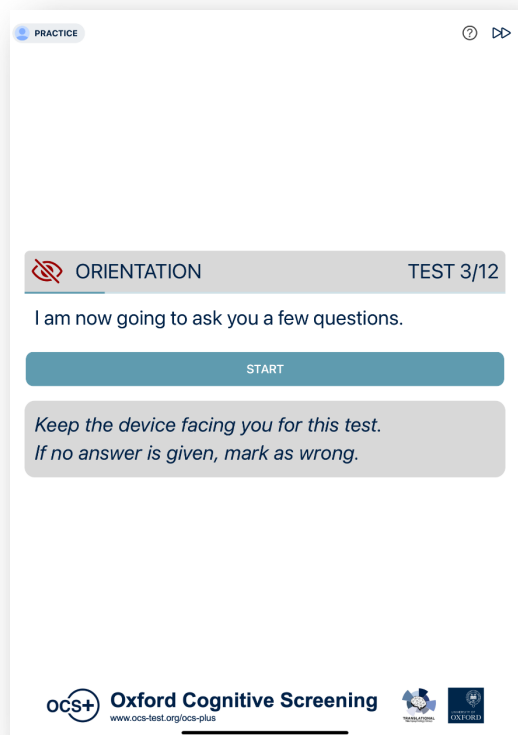OCS+ **Oxford Cognitive Screening**
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SEMANTICS
- **automatically** scored -

👁 **Show** the task screens to the respondent
Read out the question at the top
Prompt respondent to **tap** to select their answer

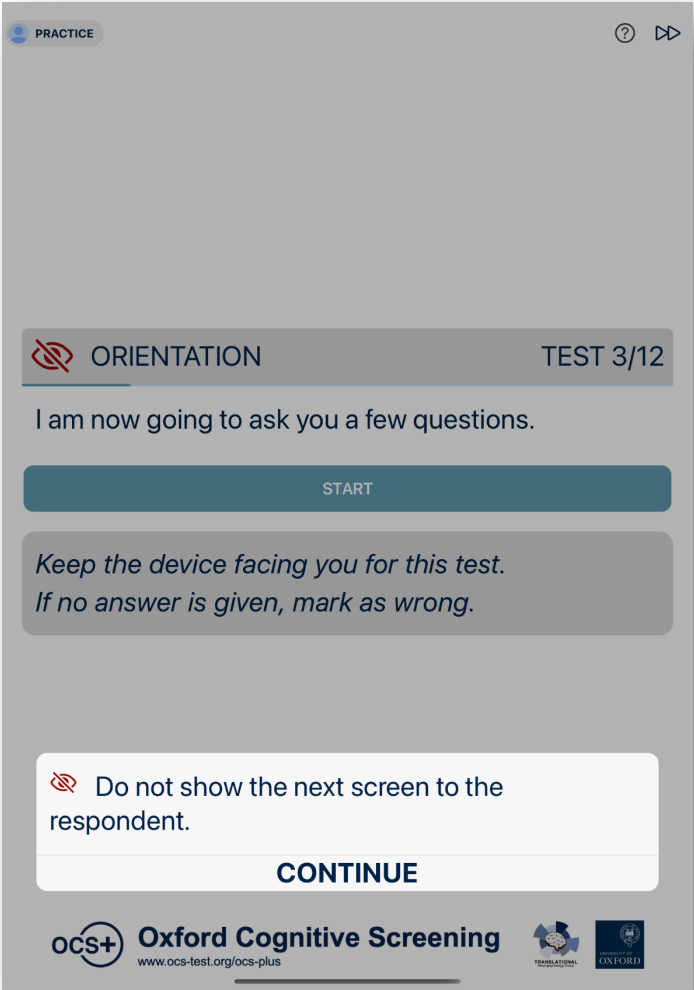Respondent chooses their answer **unaided**

× Tap this for
no answer

Tap the ostrich

Tap the pomegranate
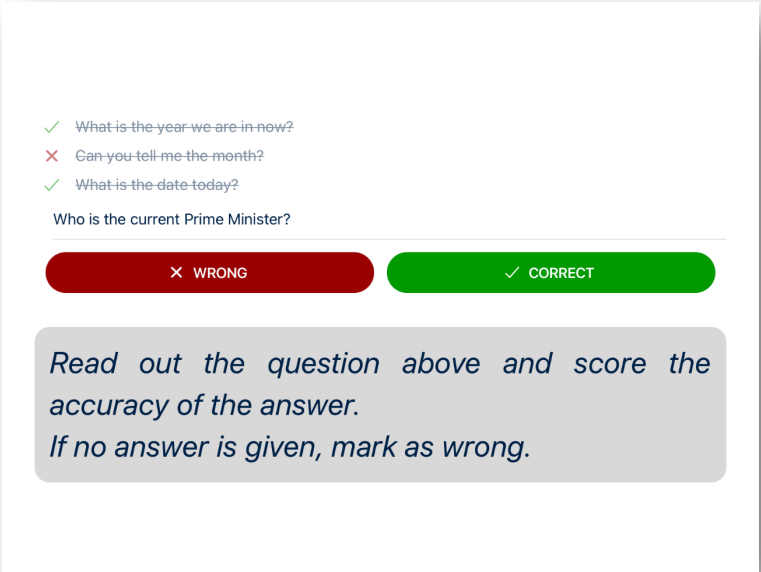
Tap the bird

Tap the vegetable
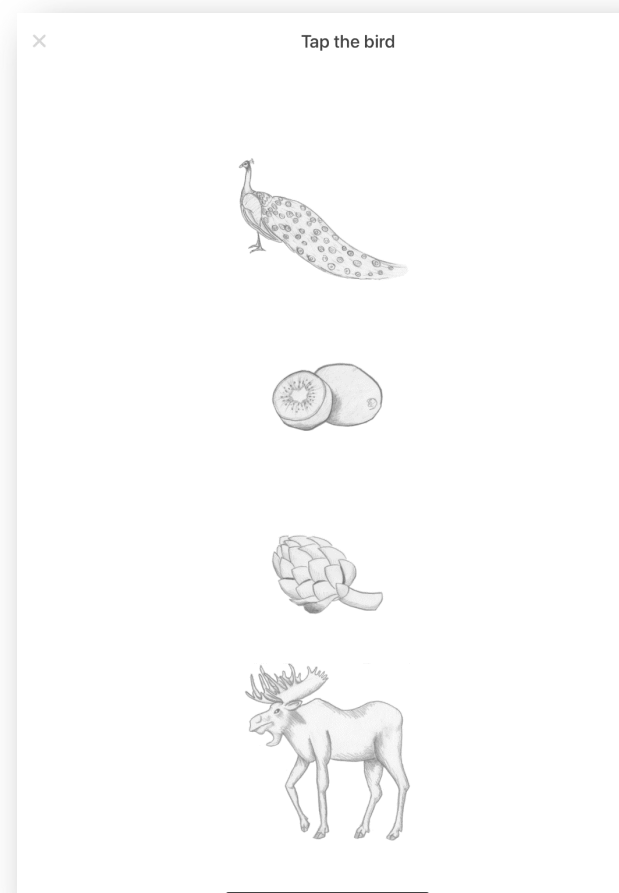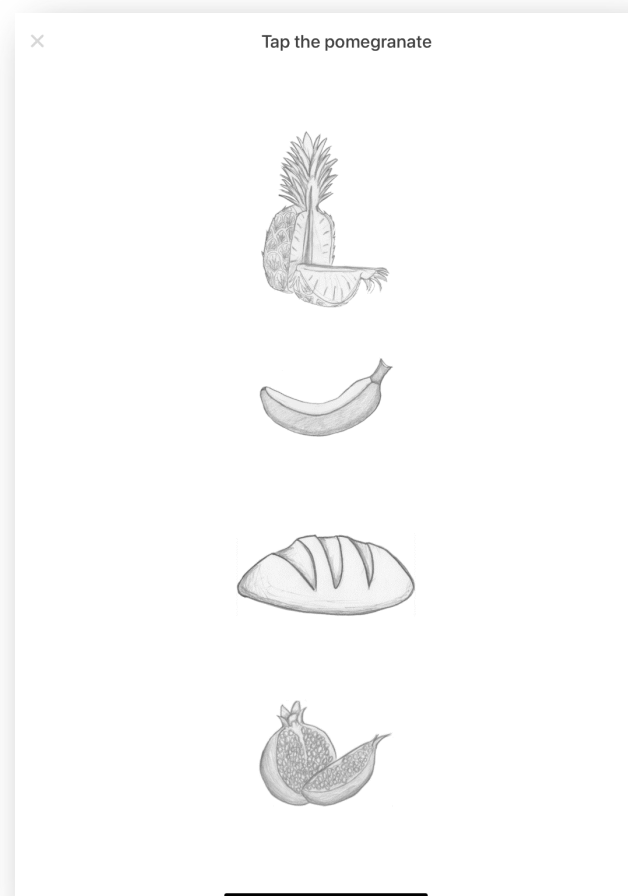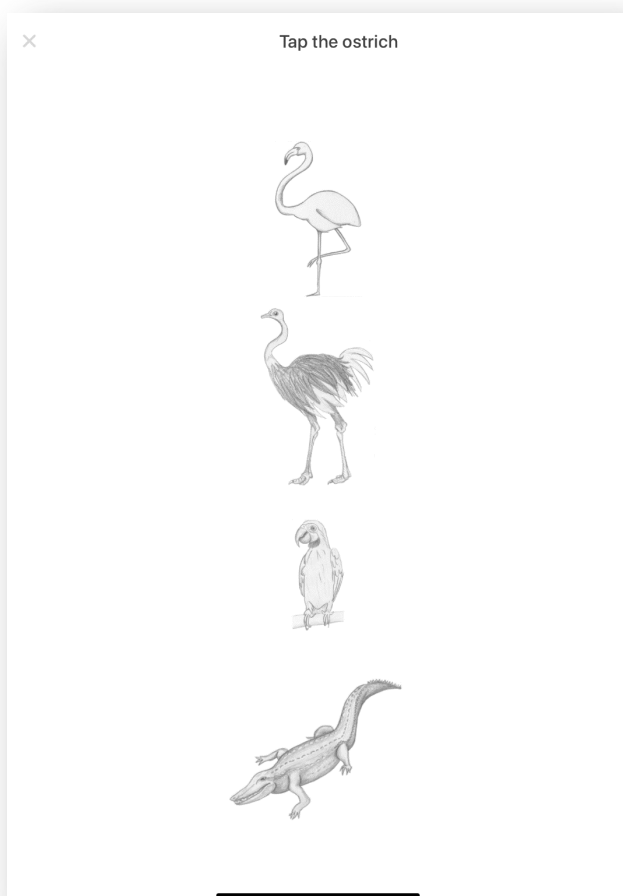
Do not show the task screen to the respondent
Read out the questions displayed
Score respondent answer
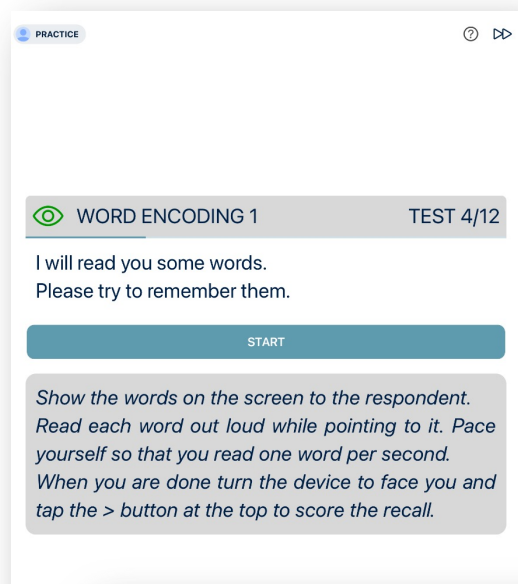
Respondent gives their answers **unaided**.

You must know the correct answers for all questions
- current date of the month
- current month
- current year
- the name of the current Prime Minister

Ensure the respondent is **not shown** the screen before continuing
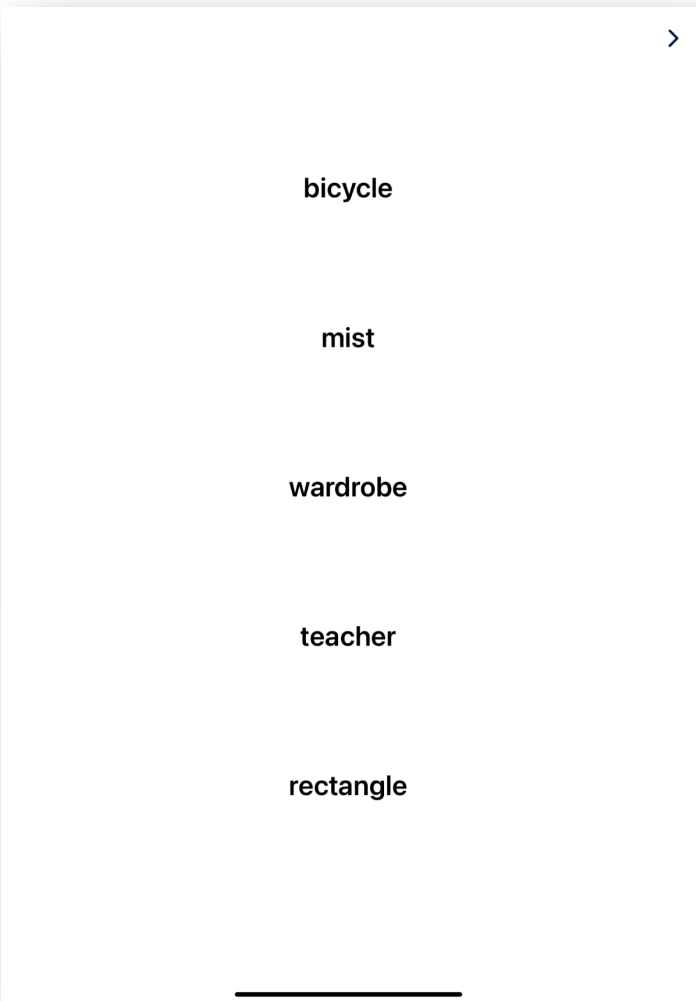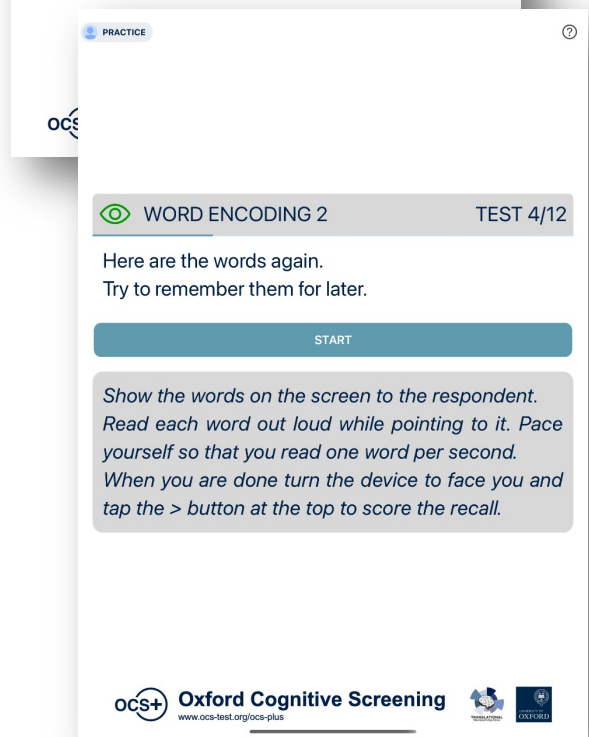
Tap this for **wrong** or **no answer**

Tap this for **correct** answer

WORD ENCODING 1 & 2
- **you** score the answers -

👁 **Show** this screen to the respondent
**Read out** the words **pointing** to each word

← Tap to move to next screen

PRACTICE

👁 WORD ENCODING 1   TEST 4/12

I will read you some words.
Please try to remember them.

START

Show the words on the screen to the respondent. Read each word out loud while pointing to it. Pace yourself so that you read one word per second. When you are done turn the device to face you and tap the > button at the top to score the recall.

PRACTICE

👁 WORD ENCODING 2   TEST 4/12

Here are the words again.
Try to remember them for later.

START

Show the words on the screen to the respondent. Read each word out loud while pointing to it. Pace yourself so that you read one word per second. When you are done turn the device to face you and tap the > button at the top to score the recall.

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>

bicycle

mist

wardrobe

teacher

rectangle

🚫 **Do not show** this screen to the respondent
Read out the question at the top
Tap the checkbox for each word correctly recalled

Respondent gives their answers **unaided**.

🚫 Can you tell me the words now?

○ bicycle
○ mist
○ wardrobe
○ teacher
○ rectangle

DONE
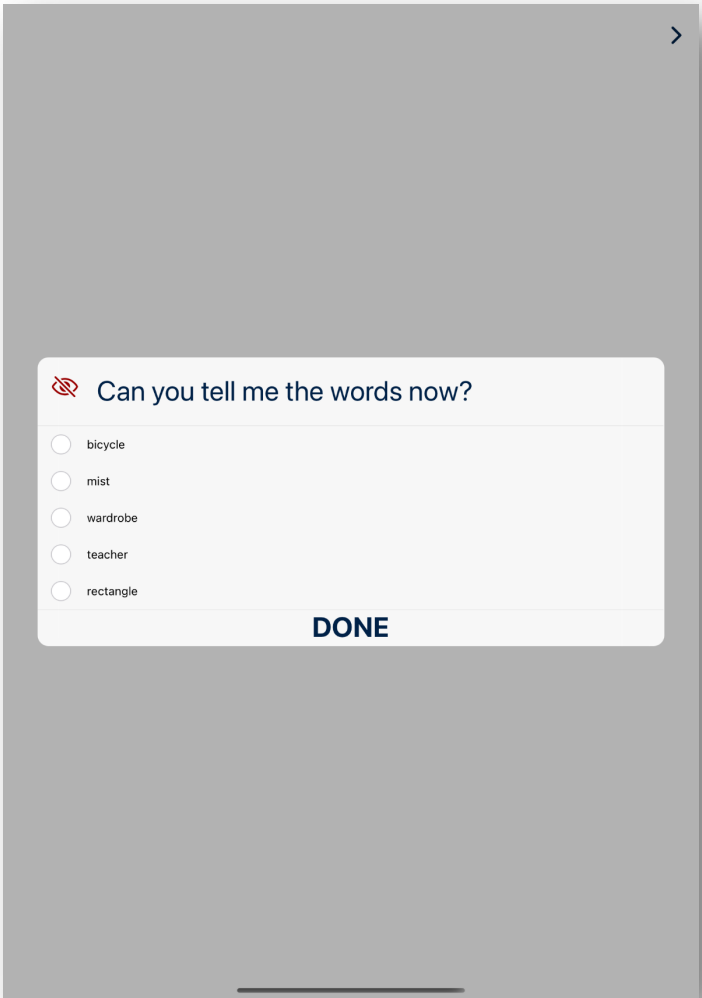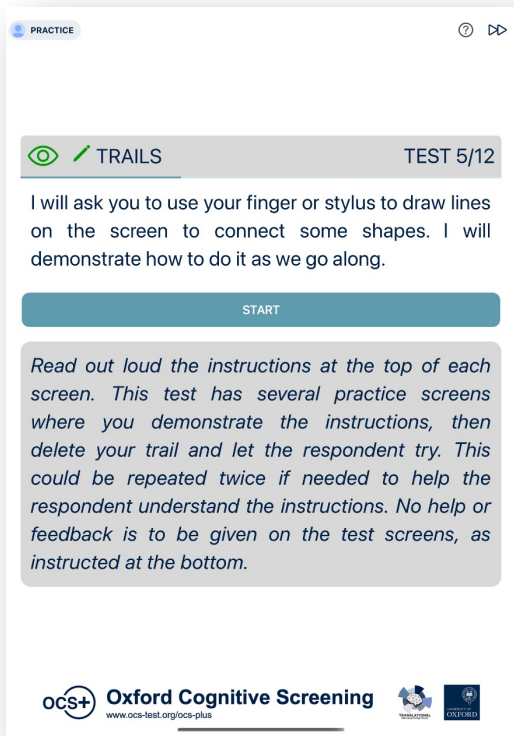
TRAILS
- **Automatically** scored -

👁 **Show** *the task screens to the respondent*
Read out *the instruction at the top*
Follow *the assessor instructions at the bottom*
✏ *Use of a* **stylus** *is recommended*

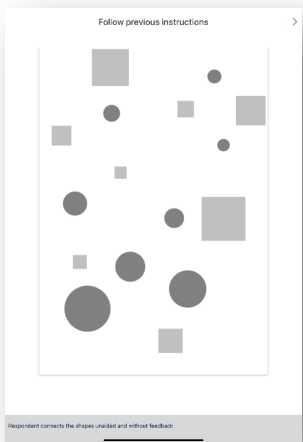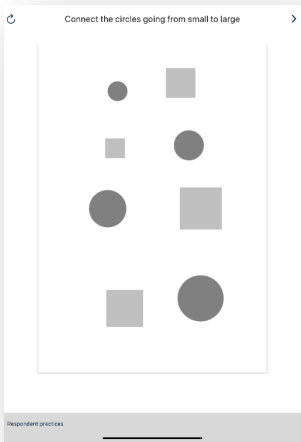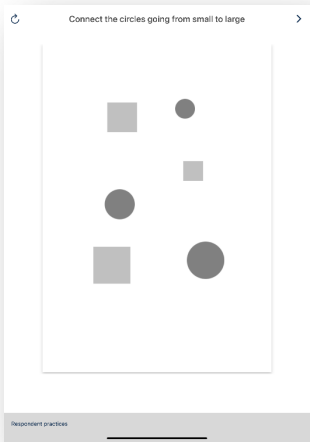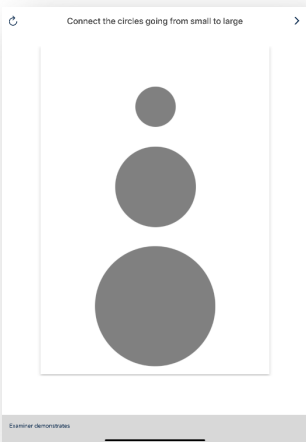↻ Tap this to clear trails
during demonstration and practice

› Tap this to move
to next screen
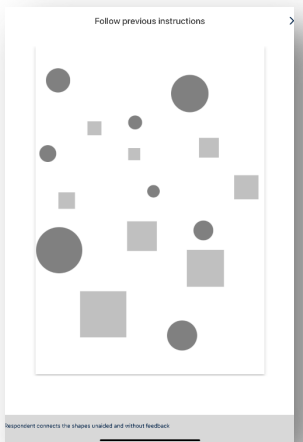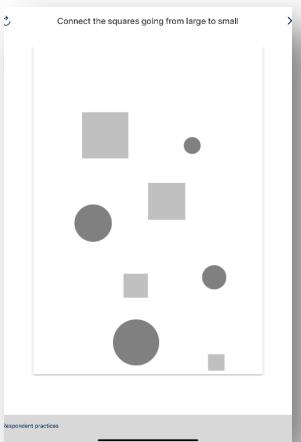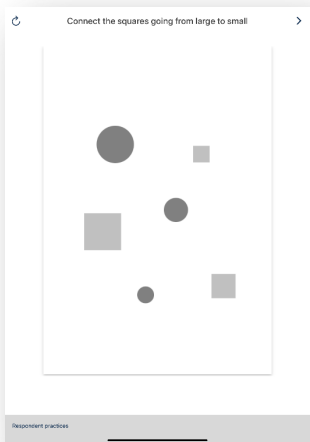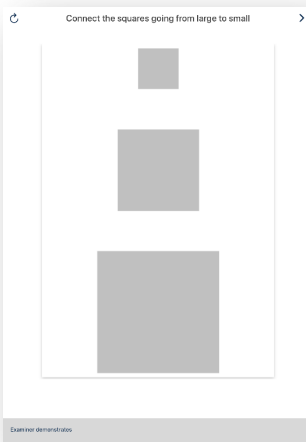
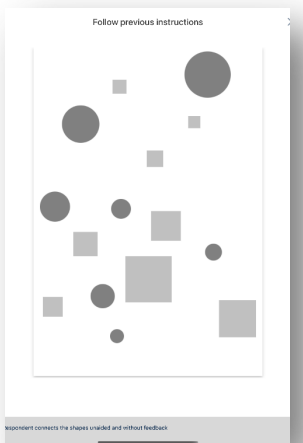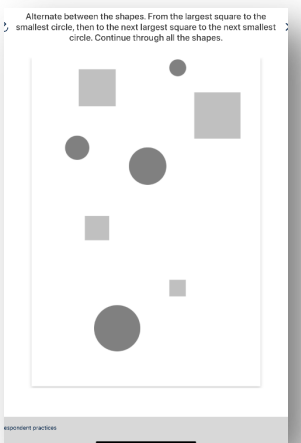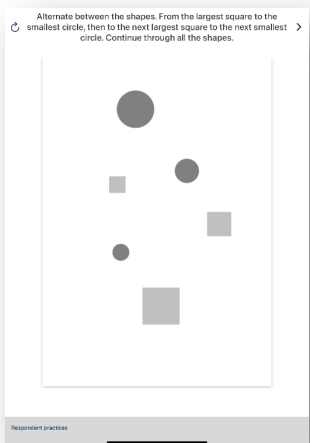|	**DEMONSTRATION** - you demonstrate -	**RESPONDENT PRACTICE** - max twice -		**TEST** - unaided, no feedback -
Circles trails				
Squares trails				
Mixed trails				
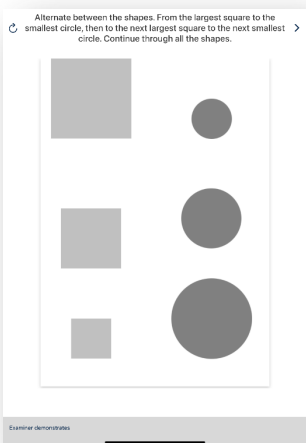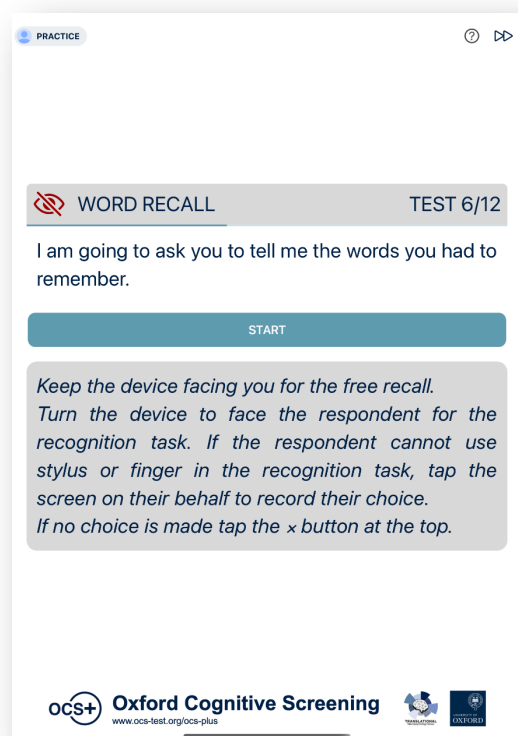
WORD RECALL - free recall
- **you** score the answers -
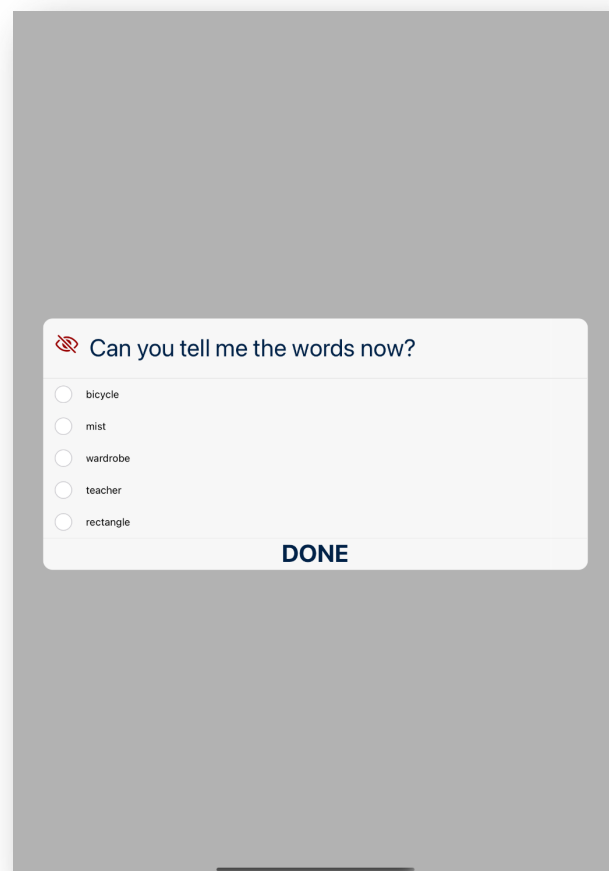
👁̶ ***Do not show*** this screen
to the respondent
Read out the question
Tap the checkbox for
each word correctly recalled

*Respondent gives their
answers **unaided**.*

WORD RECALL - recognition
- **automatically** scored -
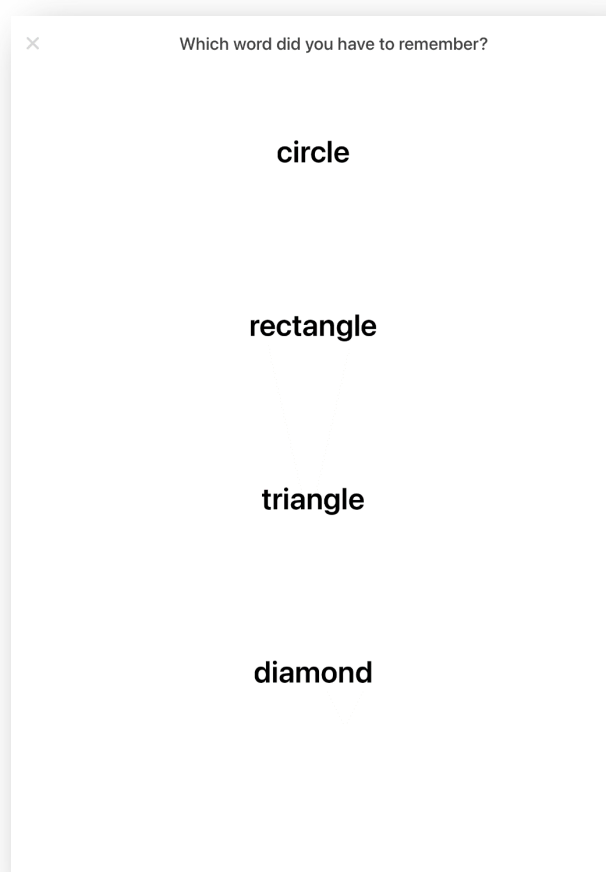
👁 Recognition **automatically** displayed only
for the words not correctly recalled
Show the screen to the respondent
Read out loud the question
Prompt them to **tap** to select the answer
Read out loud the words
Respondent chooses their answer **unaided**
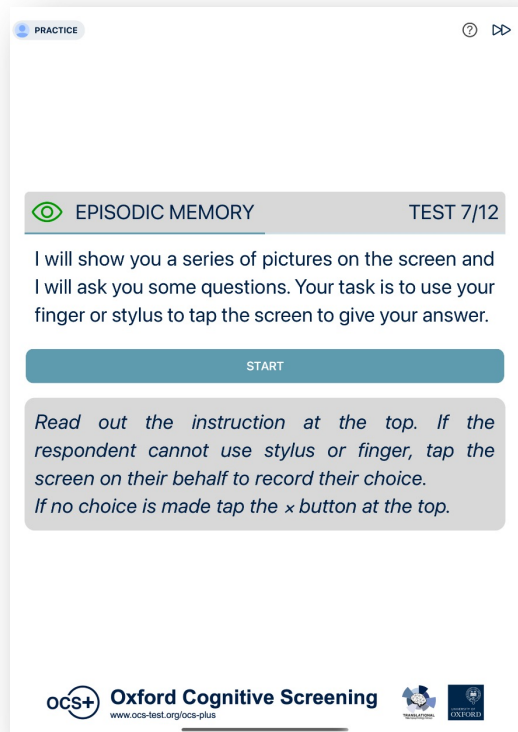
EPISODIC MEMORY
- automatically scored -

EPISODIC MEMORY — TEST 7/12

I will show you a series of pictures on the screen and I will ask you some questions. Your task is to use your finger or stylus to tap the screen to give your answer.

START

Read out the instruction at the top. If the respondent cannot use stylus or finger, tap the screen on their behalf to record their choice. If no choice is made tap the × button at the top.

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👁 **Show** the task screens to the respondent
Read out the question at the top
Prompt respondent to **tap** to select their answer
Read out loud the words
Respondent chooses their answer **unaided**

× Tap this for **no answer**

Which picture did you see before?

Which picture did you see before?

Which picture did you see before?

Which word did you have to remember?

mist

night

watch

rain

I will show you a drawing. Your task is to use your finger or stylus to copy it in the space underneath it.
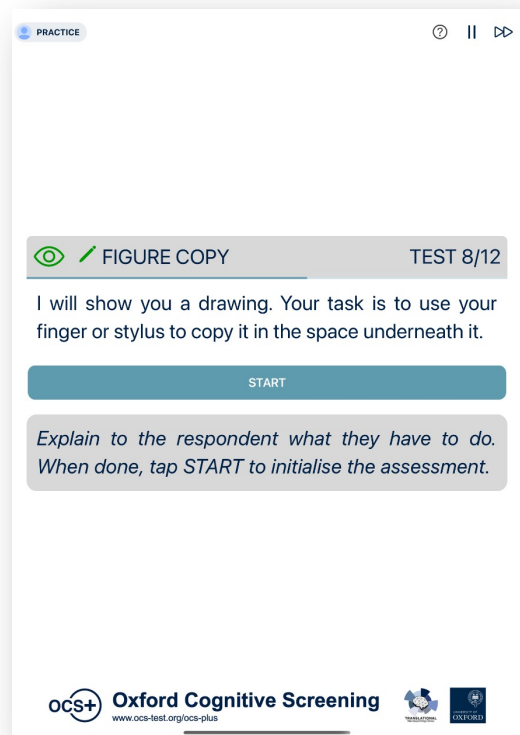
START

Explain to the respondent what they have to do. When done, tap START to initialise the assessment.

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FIGURE COPY
- currently not **automatically** scored -

👁 **Show** the task screen to the respondent
Read out the prompt at the top while
pointing to the figure

✏ Use of **stylus** is recommended
Respondent copies the drawing **unaided**
Do not correct them if they use the border
of the canvas area as a border for their drawing

Copy the figure in the space below   >
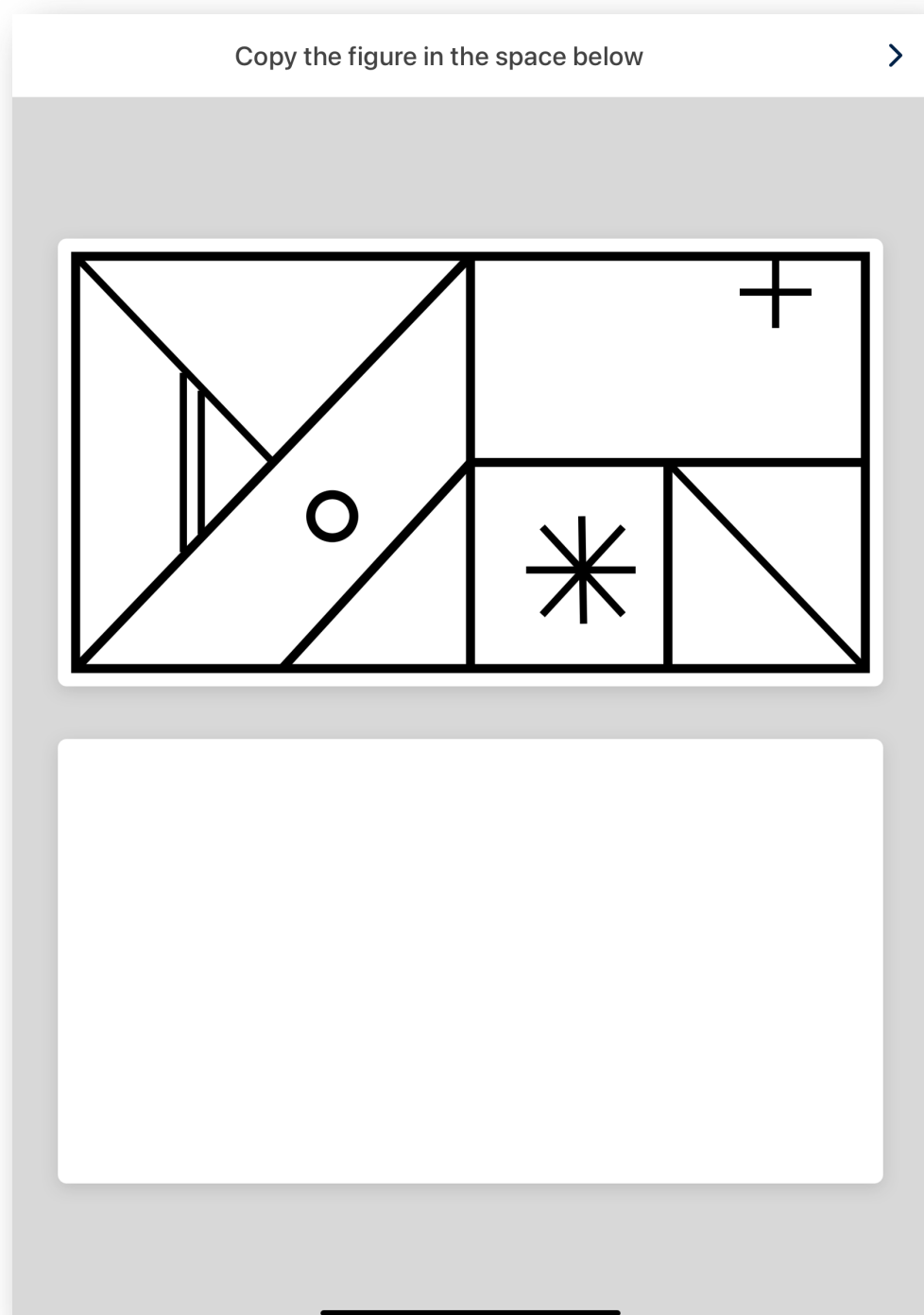
Tap to complete the task
when respondent indicates the
drawing is finished

*Respondent uses their finger
or a stylus to draw on this
canvas a copy of the figure*

PRACTICE

FIGURE RECALL   TEST 9/12

I will show you the same drawing again. This time the drawing will disappear after a short while. Your task is to try and remember it. After the drawing disappears, use your finger or stylus to draw it in the space provided.

START

Explain to the respondent what they have to do. When done, tap START to initialise the assessment.

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FIGURE RECALL
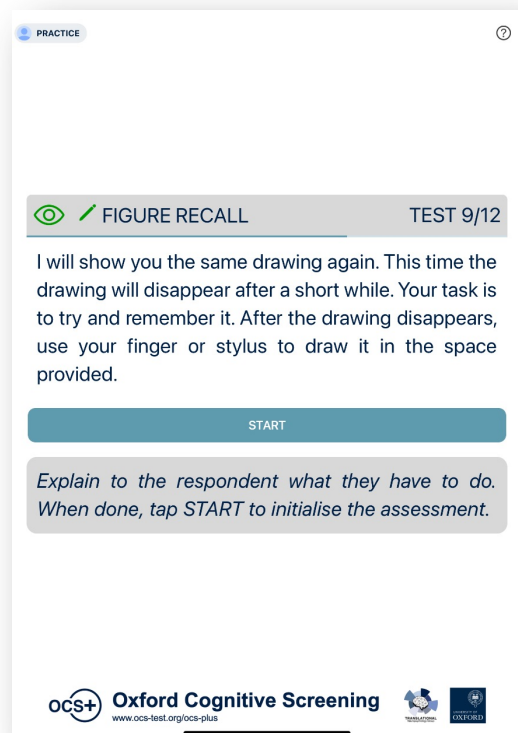### - currently not **automatically** scored -

👁 **Show** the figure to the respondent
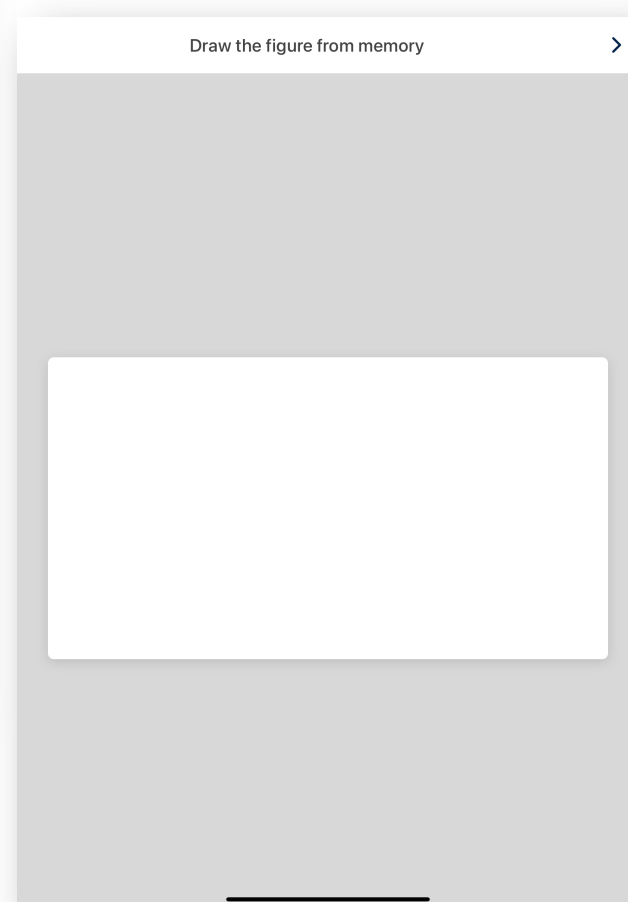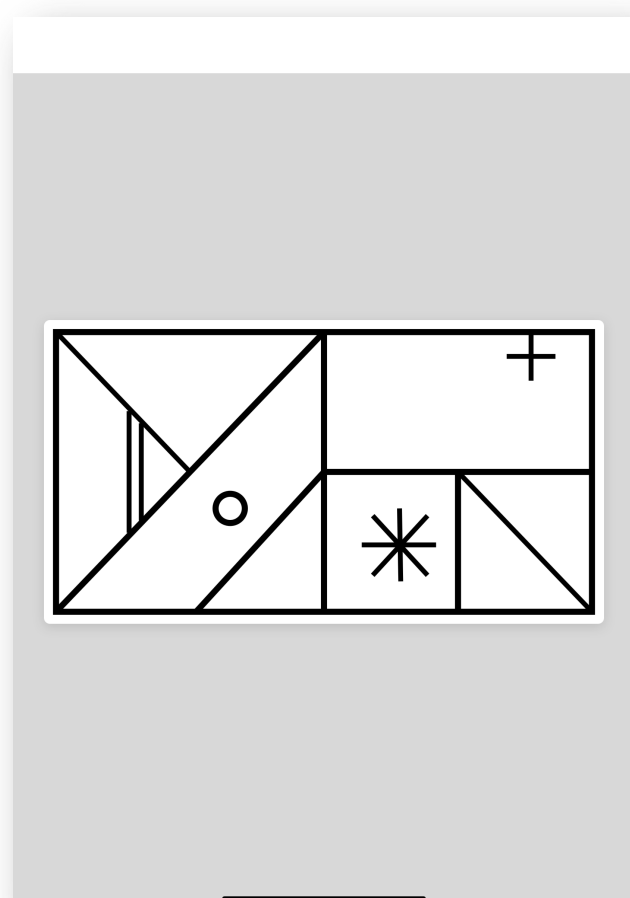The figure is only displayed for **2 seconds**
Read out the instruction at the top when the canvas replaces the figure in the middle of the screen

✎ Use of **stylus** is recommended
Respondent draws the figure **unaided**
Do not correct them if they use the border of the canvas area as a border for their drawing

Draw the figure from memory

Tap to complete the task when respondent indicates the drawing is finished

Respondent uses their finger or a stylus to draw on this canvas the figure from memory

RULE FINDING   TEST 10/12

I will show you a pattern of squares and triangles. A red dot will appear on one of the shapes. The dot will move around the shapes following certain rules. Its previous position will be highlighted to help you remember. Your task is to predict where the dot goes next based on previous moves.

Sometimes the rules will change without notice. When this happens, please try to pick up on the new rule. Because the rules change without notice, it is impossible for you to correctly predict the moves every time. Just try and do your best.

START

Read out the instruction at the top. If the respondent cannot use stylus or finger, tap the screen on their behalf to record their choice.

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RULE FINDING
- **automatically** scored -
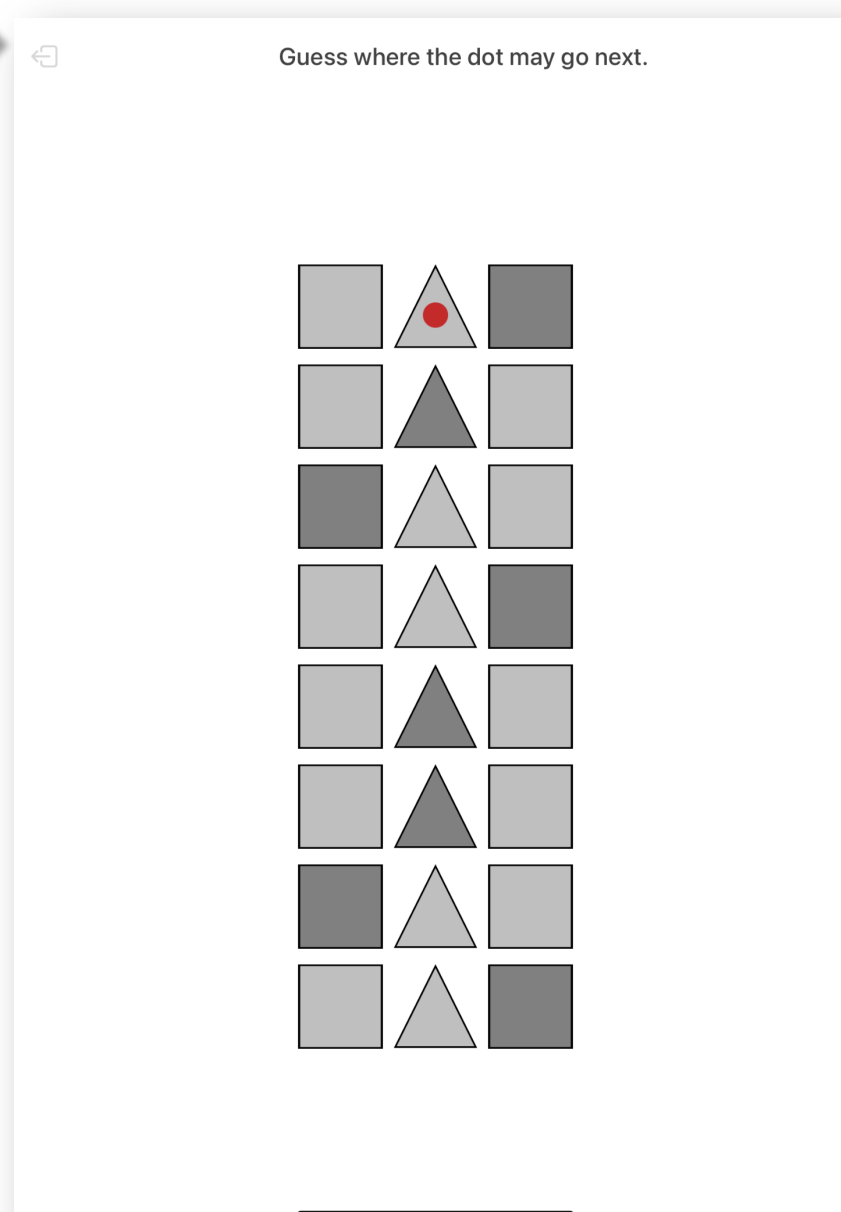
👁 **Show** the task screen to the respondent
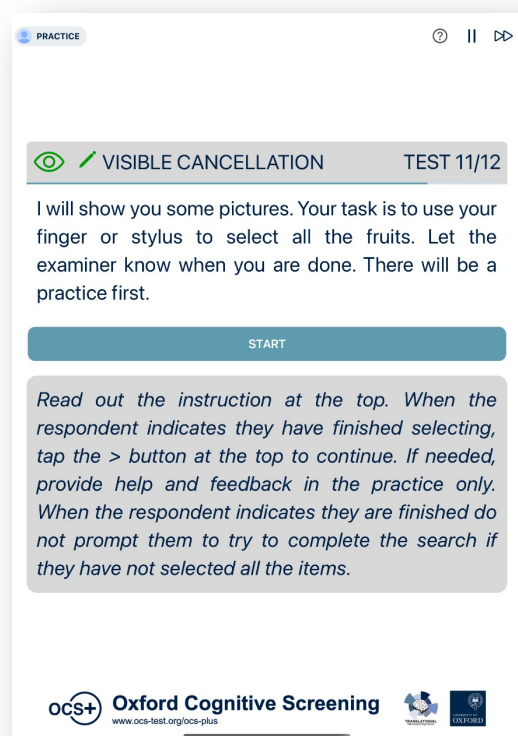**Read out** the prompts at the top
Prompt respondent to **tap** to select their answer
Point to each new position of the red dot for first **three** trials when the prompt is displayed at the top

*Respondent makes their selection **unaided** when there is no text prompt displayed at the top.*

Tap this to ⬅ **abort** the task

Guess where the dot may go next.

I will show you some pictures. Your task is to use your finger or stylus to select all the fruits. Let the examiner know when you are done. There will be a practice first.

START

Read out the instruction at the top. When the respondent indicates they have finished selecting, tap the > button at the top to continue. If needed, provide help and feedback in the practice only. When the respondent indicates they are finished do not prompt them to try to complete the search if they have not selected all the items.

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VISIBLE CANCELLATION
- **automatically** scored -

👁 **Show** the task screen to the respondent
Prompt respondent to **tap** to make their choices
Wait for respondent to indicate they finished
Test automatically times out after **3 minutes**

✏ Use of **stylus** is recommended
Respondent makes their selection **unaided** and **without feedback** from you
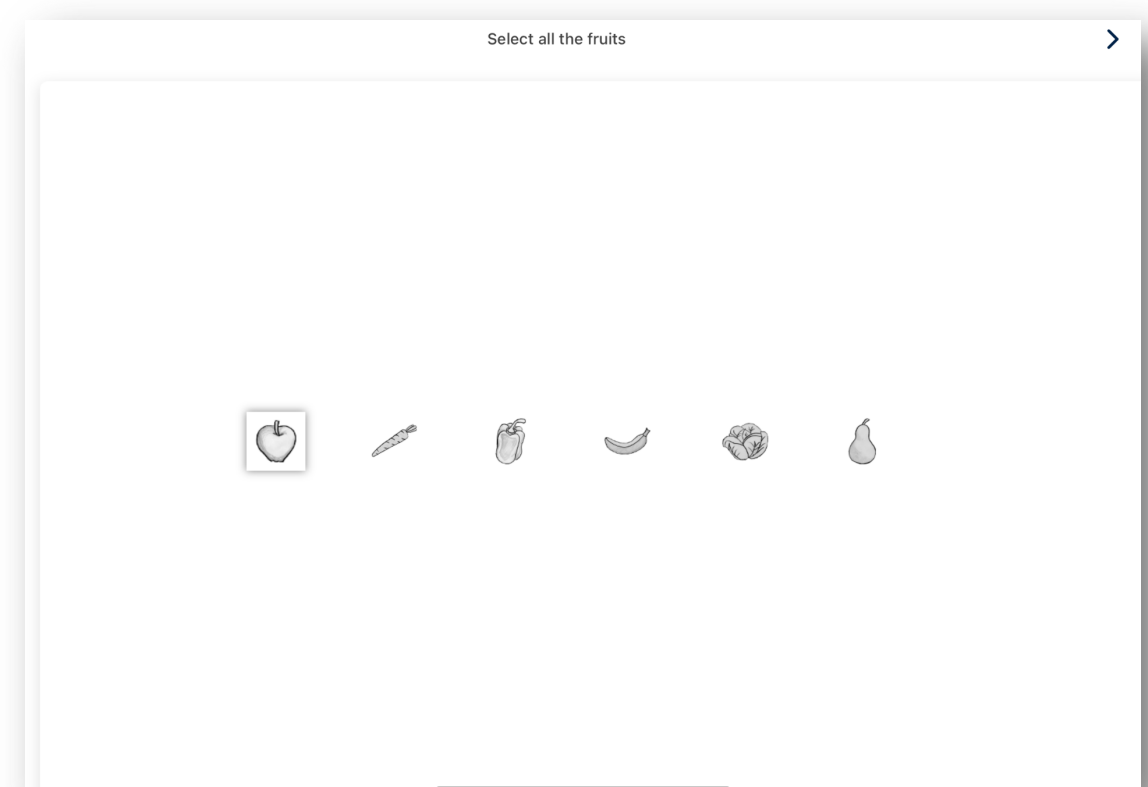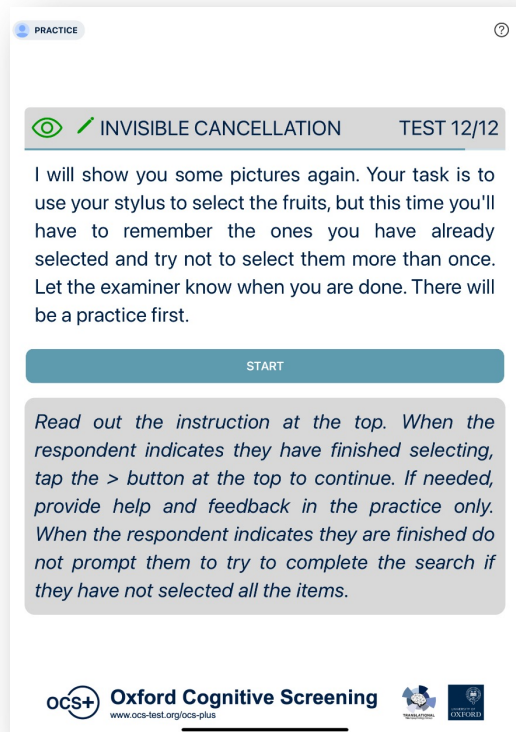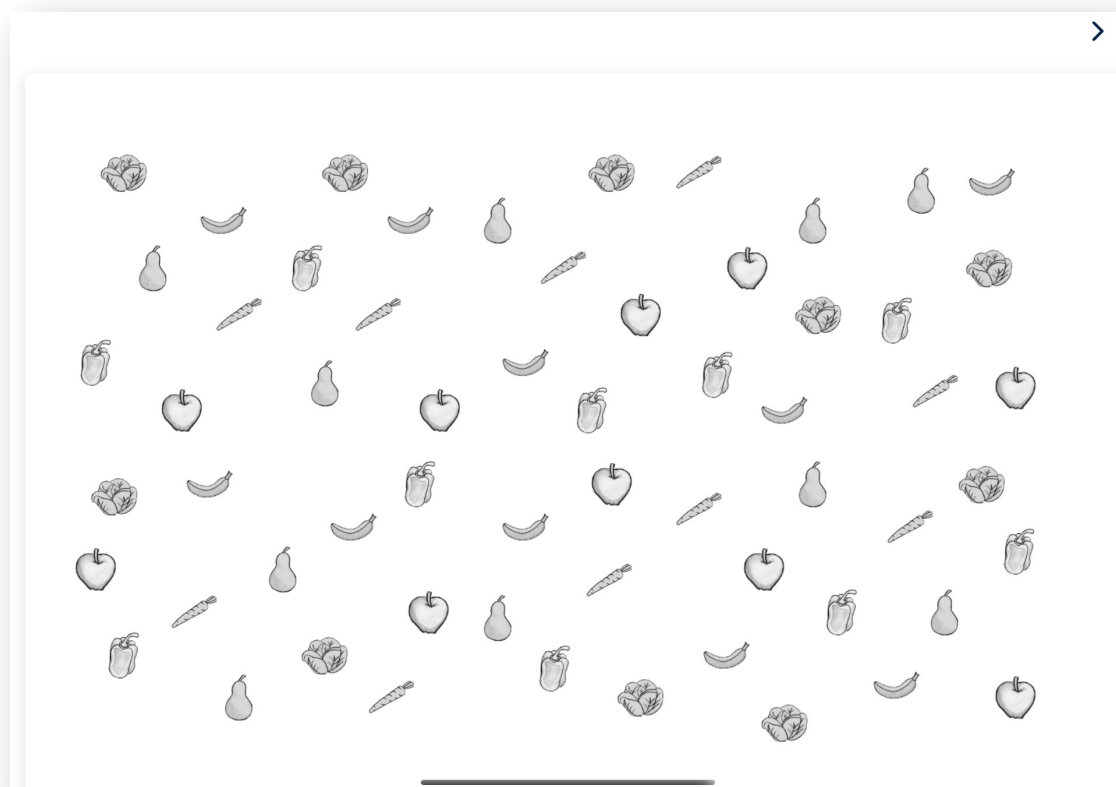**Do not prompt** them when they have finished

Tap to complete the task when respondent **indicates** they have finished

Practice

Select all the fruits
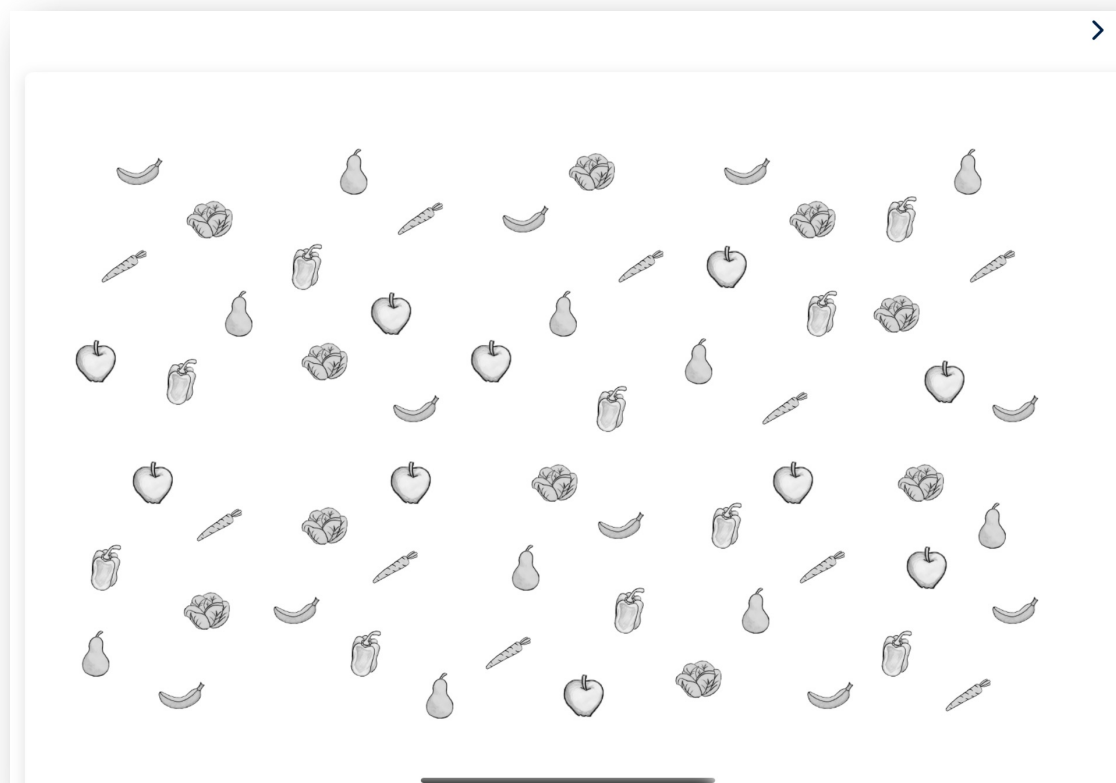
Highlight that a selected item has a **shadow** and **cannot be unselected**

Clarify to respondent that fruit is what you put in a fruit salad, for example not pepper.

👁 ✏ INVISIBLE CANCELLATION   TEST 12/12

I will show you some pictures again. Your task is to use your stylus to select the fruits, but this time you'll have to remember the ones you have already selected and try not to select them more than once. Let the examiner know when you are done. There will be a practice first.

START

Read out the instruction at the top. When the respondent indicates they have finished selecting, tap the > button at the top to continue. If needed, provide help and feedback in the practice only. When the respondent indicates they are finished do not prompt them to try to complete the search if they have not selected all the items.

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👁 **Show** the task screen to the respondent
Prompt respondent to **tap** to make their choices
Wait for respondent to indicate they finished
Test automatically times out after **3 minutes**

✏ Use of **stylus** is recommended
Respondent makes their selection **unaided** and **without feedback** from you
Do not prompt them when they have finished

Tap to complete the task when respondent **indicates** they have finished

Practice

Select all the fruits

Highlight that a selected item has a **shadow only temporarily** and **cannot be unselected**
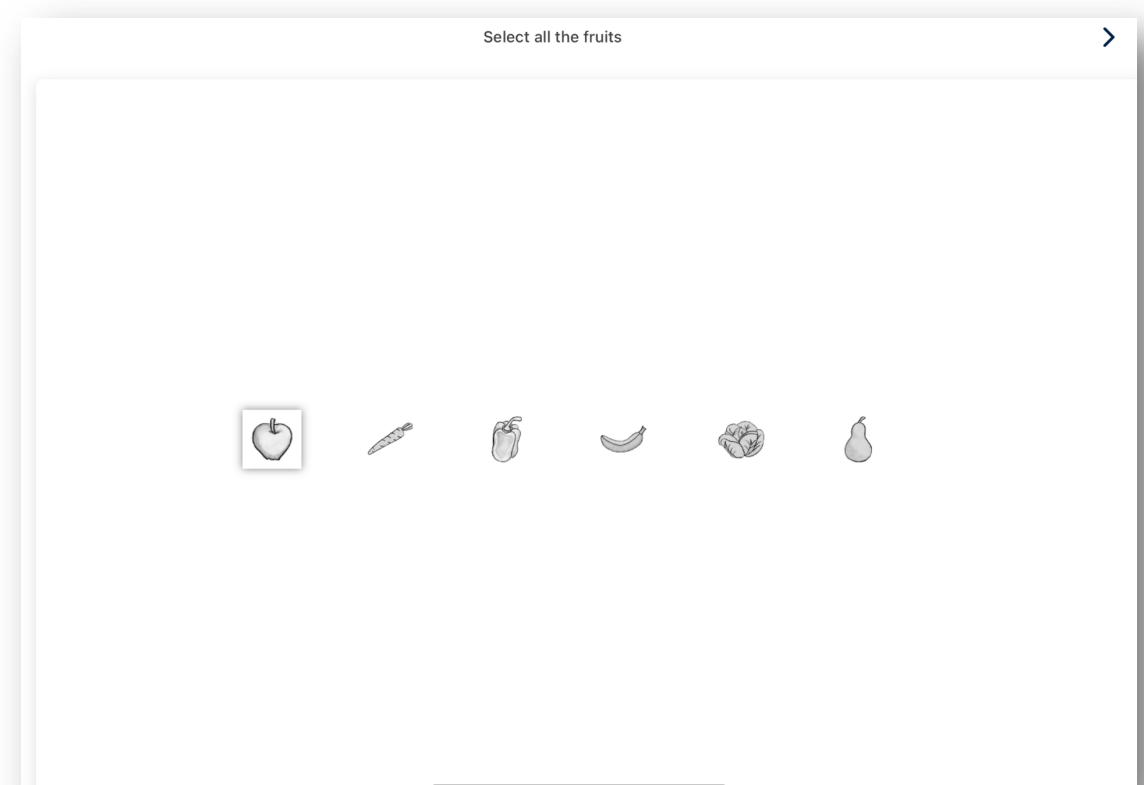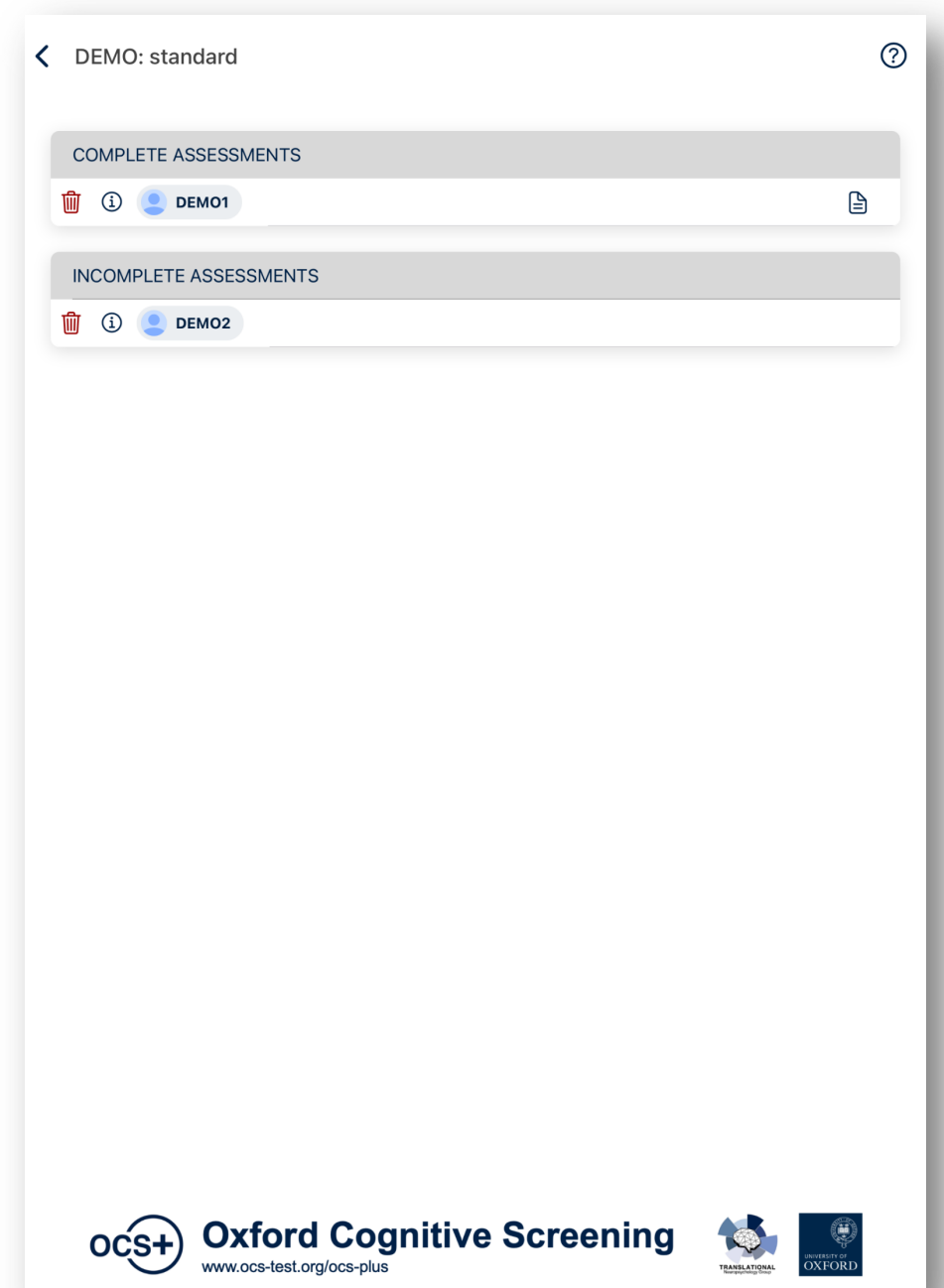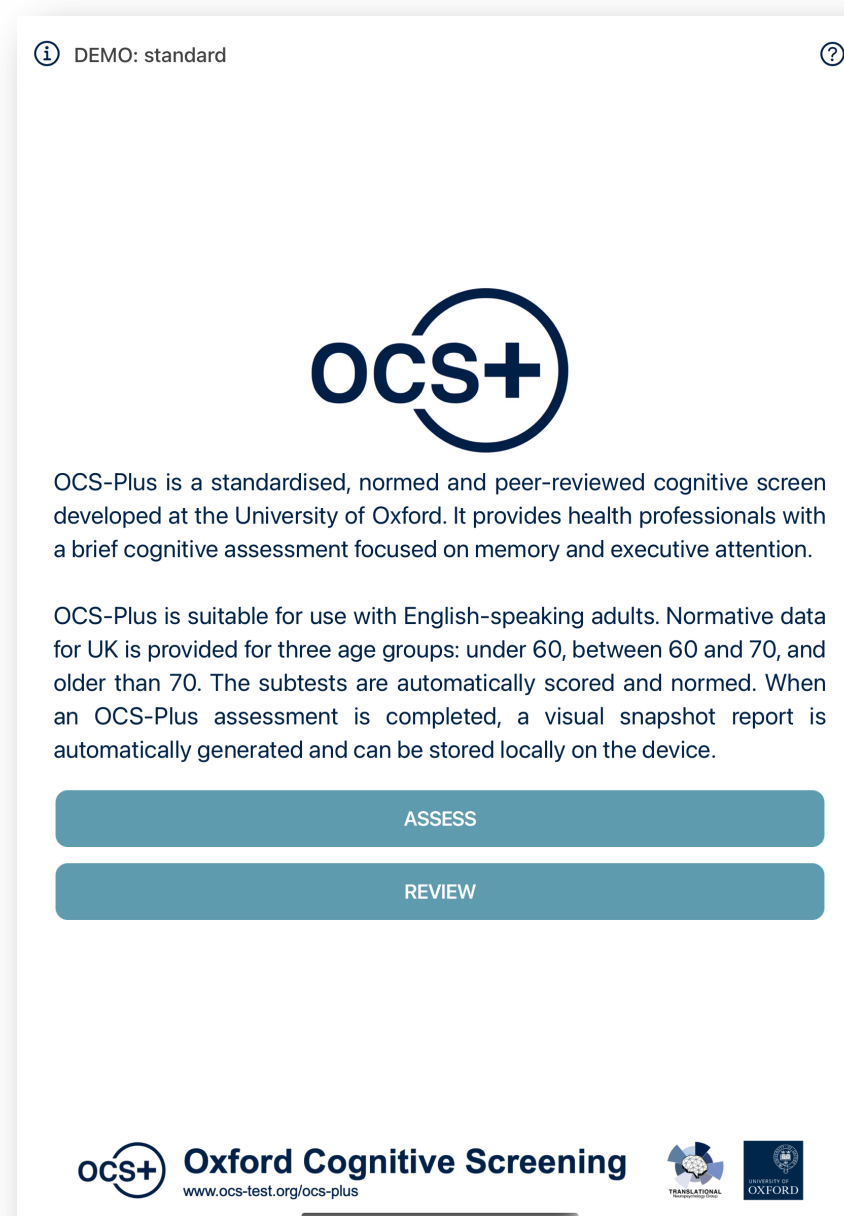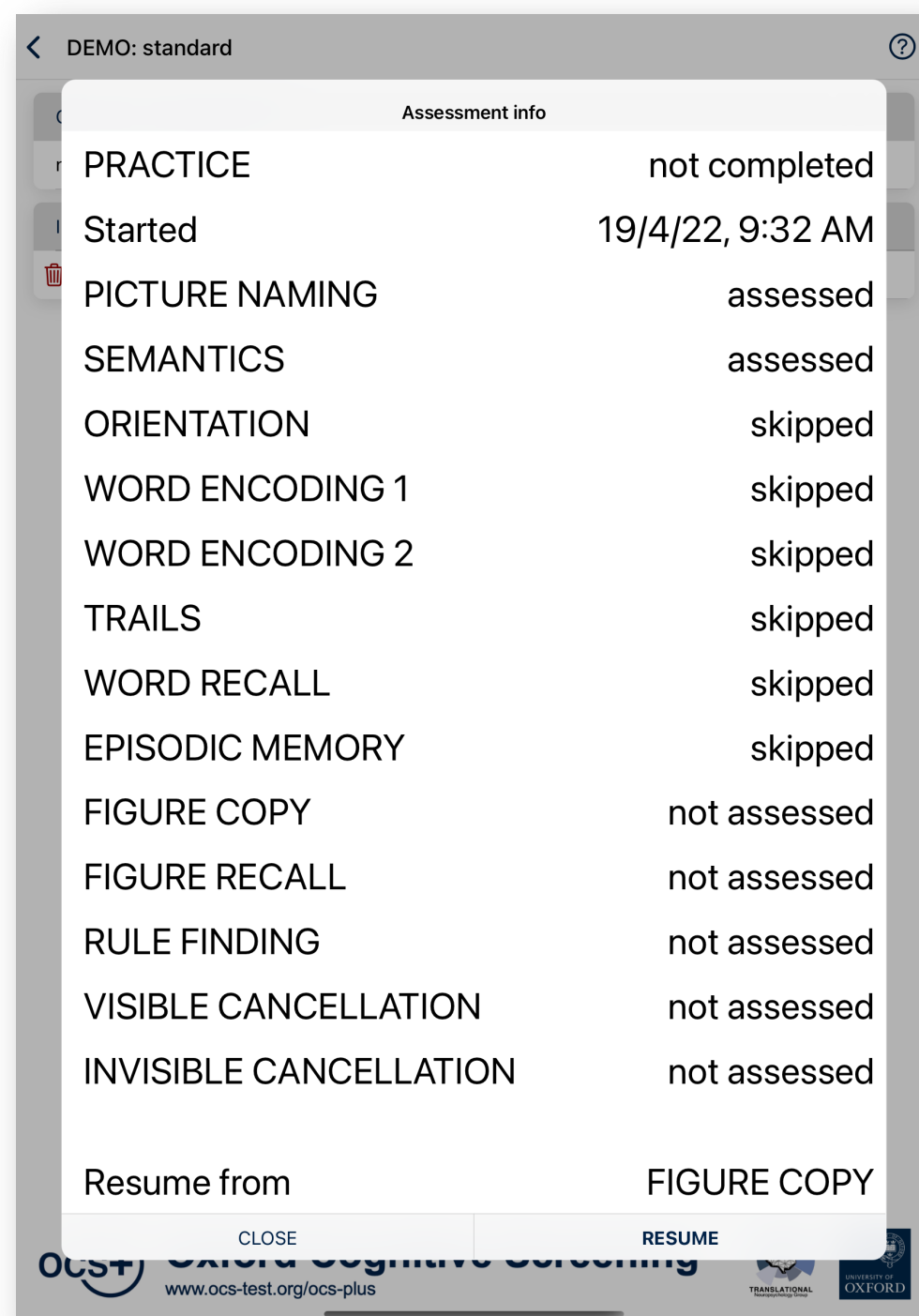
Reviewing assessments

- 📄 **VIEW** cognitive profile for completed assessments

- 🗑️ **DELETE** assessments – a maximum of 8 assessments can be stored on your device at any time

- ⓘ **VIEW** assessment information

Tap to access review screen →

Incomplete assessments

You can view details of incomplete assessment and resume them

An incomplete assessment can only be resumed on the **same device** as it was started on

Assessment info	
PRACTICE	not completed
Started	19/4/22, 9:32 AM
PICTURE NAMING	assessed
SEMANTICS	assessed
ORIENTATION	skipped
WORD ENCODING 1	skipped
WORD ENCODING 2	skipped
TRAILS	skipped
WORD RECALL	skipped
EPISODIC MEMORY	skipped
FIGURE COPY	not assessed
FIGURE RECALL	not assessed
RULE FINDING	not assessed
VISIBLE CANCELLATION	not assessed
INVISIBLE CANCELLATION	not assessed
Resume from	FIGURE COPY
CLOSE	RESUME

DEMO: standard

Some tasks were assessed

Some tasks were skipped
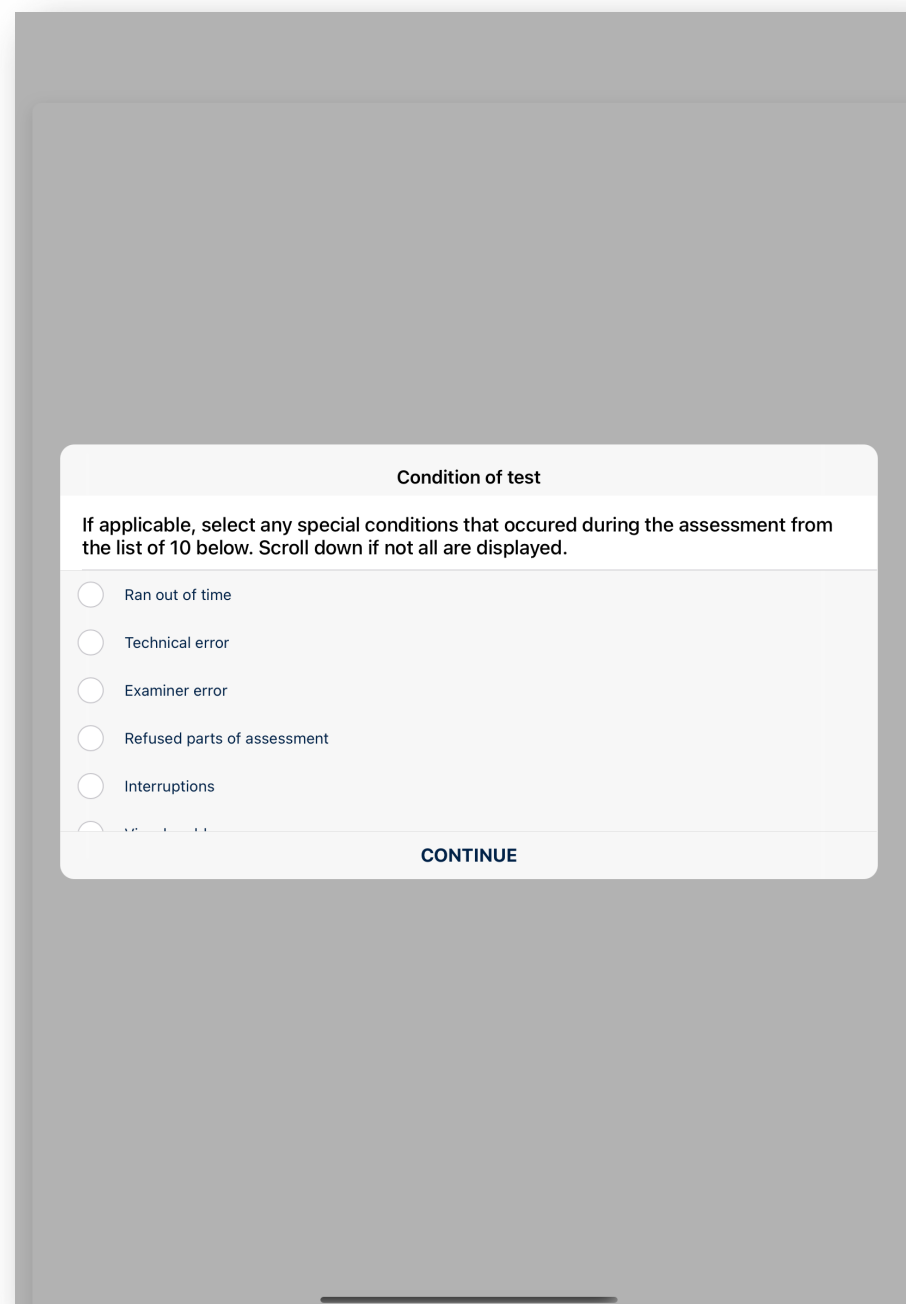
Tasks still to run

Tap to resume the assessment

www.ocs-test.org/ocs-plus

Condition of test - RESEARCH licence only

At the completion of an assessment, you can mark special conditions of test that could be relevant for your data.

Select the special conditions relevant to the assessment

Condition of test

If applicable, select any special conditions that occured during the assessment from the list of 10 below. Scroll down if not all are displayed.
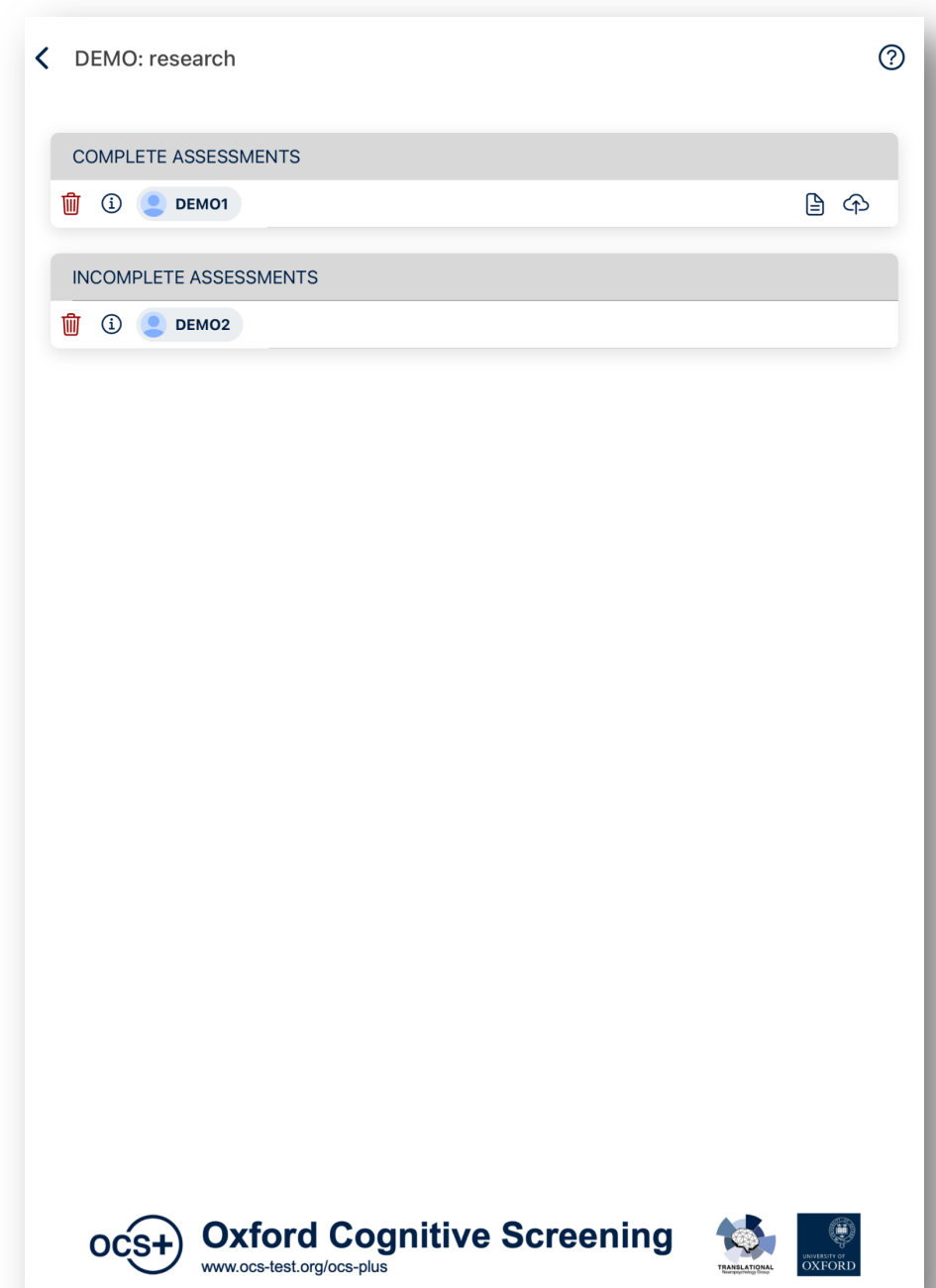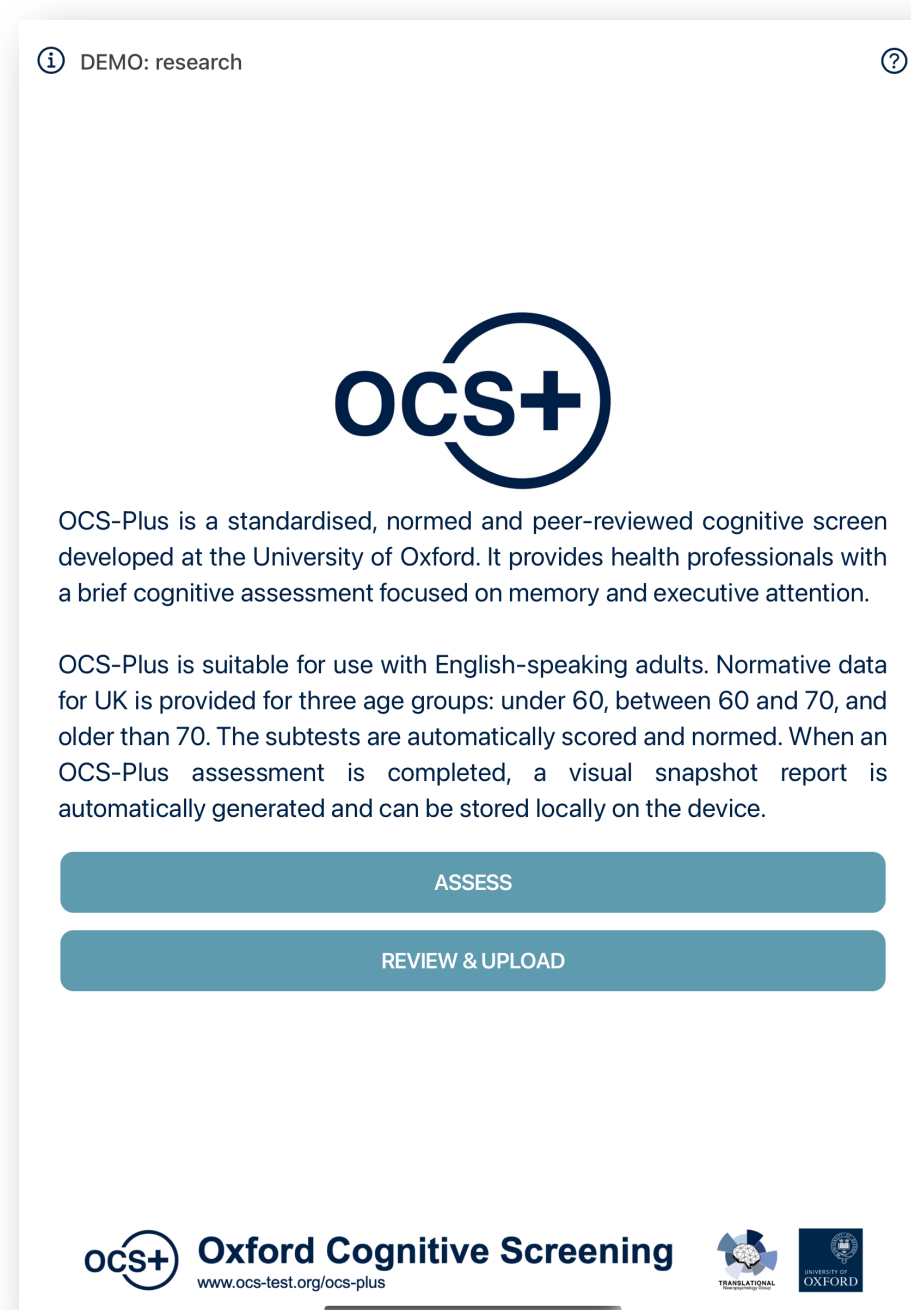
- ○ Ran out of time
- ○ Technical error
- ○ Examiner error
- ○ Refused parts of assessment
- ○ Interruptions

CONTINUE

Uploading assessments - RESEARCH licence only

☁ **UPLOAD** raw data for completed assessments
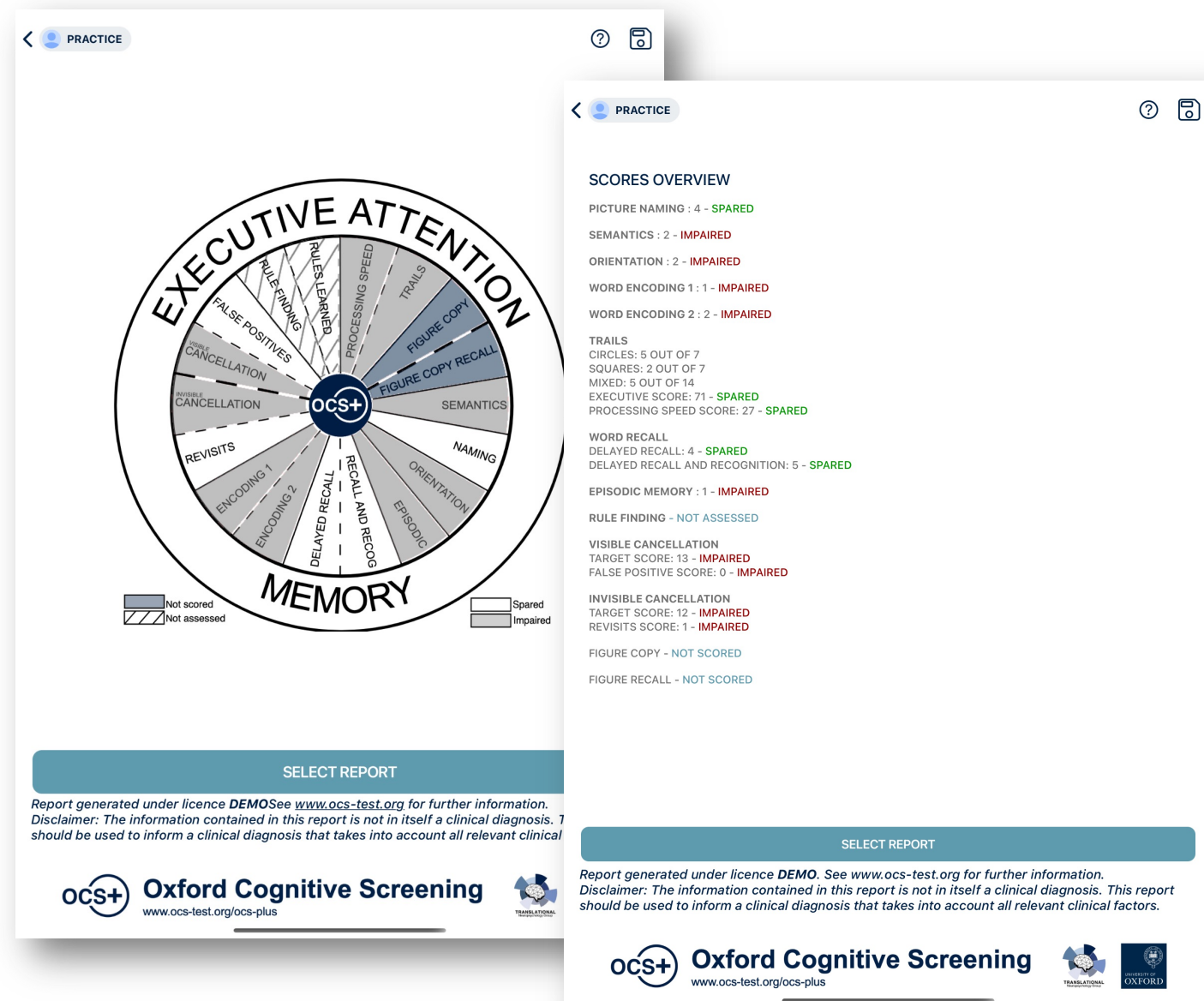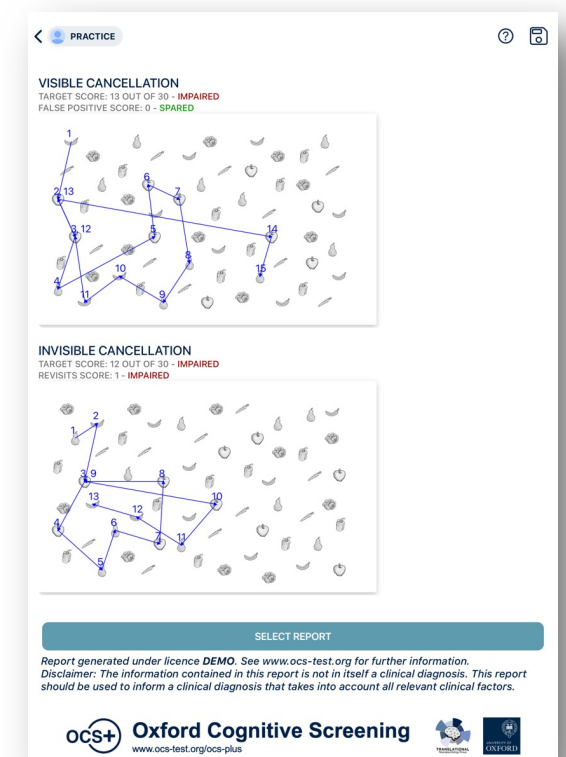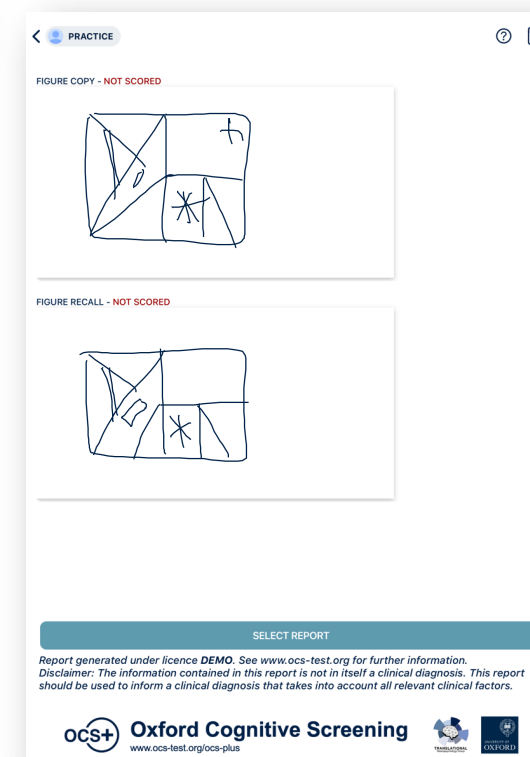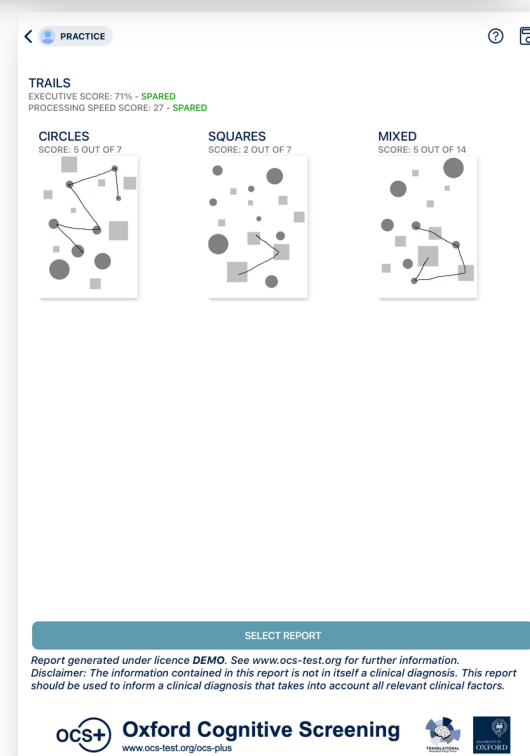
Tap to access review screen

Cognitive profile

Profile highlighting spared and impaired performance

Separate reports for drawing and cancellation tasks

You can save a screenshot of each report on your device for your records if required

Tap to select to view representations of individual task performance

Note: FIGURE COPY and FIGURE RECALL are not scored in this version.

Further information

More information at www.ocs-test.org/ocs-plus

Normative data on UK and German healthy adults – see original validation paper: https://doi.org/10.1038/s41598-021-87287-8

RESEARCH LICENCING

If you need a **RESEARCH** licence to upload **anonymized raw** data from the OCS-Plus app, please email us as ocsplus@psy.ox.ac.uk

A contractual **collaboration agreement** between the University of Oxford and the institution requesting a research licence must be in place before any data can be collected.

You will need to ensure you have sufficient ethical approvals for all data collected with the OCS-Plus app and that the approved ethics includes storage of anonymized data on cloud-based storage.

Anonymized research data will be accessible through dedicated members of the Translational Neuropsychology Research Group which will collate and send research data to each research team – for full details see our privacy policy - https://www.ocs-test.org/ocs-plus-privacy/