
Chapter 13. Information Sampling Task (IST)

IST description

IST is a task designed to measure pre-decisional processing, where the subject gathers and evaluates information prior to making a decision. Inadequate reflection means that decisions will be made on the basis of less evidence, and, therefore will reduce the accuracy of the eventual decision.

Display

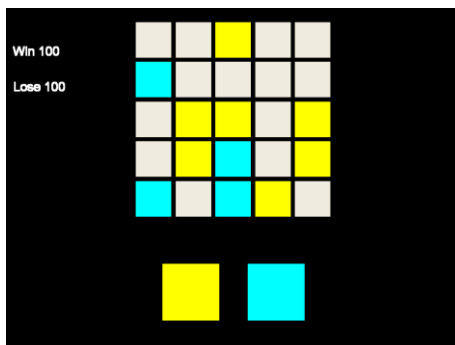


Figure 13-1 The IST task screen (training stage). The subject has touched 11 boxes already.

The subject is presented with a 5x5 array of grey boxes on the screen, and two larger coloured panels below these boxes. The subject is instructed that they are playing a game for points, which they can win by making a correct decision about which colour is in the majority under the grey boxes. They must touch the grey boxes one at a time, which open up to reveal one of the two colours shown at the bottom of the screen. Once a box has been touched, it remains open. When the subject has made their decision about which colour is in the majority, they must touch the panel of that colour at the bottom of the screen to indicate their choice. After the subject has indicated their choice, all the remaining grey boxes on the screen reveal their colours and a message is displayed to inform the subject whether or not they were correct. The colours change from trial to trial. At the end of a trial the grey boxes are displayed on the screen again at a speed which depends on how fast the trial was completed, so that there is always at least 30 seconds between trials.

The boxes always open up in the same order – for example, if the order of opening in the first trial is blue, yellow, yellow, yellow, blue, blue, yellow, yellow, then the first five boxes that the subject touches will reveal colours in that order, regardless of the spatial location of the boxes the subject touches.

There are two conditions – the fixed win condition, in which the subject is awarded 100 points for a correct decision regardless of the number of boxes opened, and the decreasing win condition, in which the number of points that can be won for a correct decision starts at 250 and decreases by 10 points for every box touched. In either condition an incorrect decision costs 100 points.

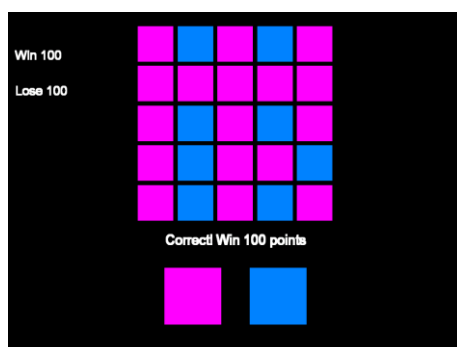


Figure 13-2 The IST test screen (in the fixed win condition) showing that the subject has chosen correctly

Task

The task begins with a single practice trial in the fixed win condition, followed by 10 assessed trials in either the fixed win condition or the decreasing win condition (depending on the mode selected), then 10 further assessed trials in either the decreasing win or the fixed win condition.

IST test modes

The IST test has two modes:

- Fixed win-decreasing win, (one fixed win practice trial, then 10 fixed-win assessed trials and 10 decreasing win assessed trials)
- Decreasing win-fixed win (one fixed win practice trial, then 10 decreasing-win assessed trials and 10 fixed win assessed trials)

▲ If you have a group of subjects to whom you wish to administer this test, you should counterbalance both modes within this group. If you are administering this test as part

of a battery, this will require setting up two near-identical batteries, and administering the appropriate battery to each subject.

Administration time

This test takes around twelve minutes to administer.

IST administration script (fixed win-decreasing win)

Fixed win practice stage

With the IST start screen displayed, press

 to begin the test.

Explain the test to the subject as follows, indicating the appropriate areas of the screen.

You are about to play a game in which you can win points. The game will take about twelve minutes to complete. It consists of a short practice part and then two main parts. On each main part there will be 10 turns. On every turn, you will be able to see 25 boxes on the screen.

Indicate the grey boxes and the coloured panels.

To start with, all the boxes will be grey, like they are at the moment. When you touch a box, it opens and shows one of two colours. You have to decide whether there are more blue boxes, or more yellow boxes, and then touch the panel of that colour at the bottom of the screen.

If you make a correct decision, you win 100 points, and if you make a wrong decision you lose 100 points.

You will start with 100 points Try to win as many more points as you can.

Encourage the subject to touch a box.

Try touching one of the boxes now.

Ask the subject to touch another box.

And another box.

If the subject is hesitating, prompt with:

Touch some more boxes until you are ready to decide, and then touch one of the panels at the bottom of the screen.

The subject must touch at least one box in the 5 x 5 array before they can use the coloured panels at the bottom of the screen to indicate which colour they wish to choose.

When the subject has touched one of the panels at the bottom of the screen, the message **Correct! Win 100 points** or **Wrong! Lose 100 points** is displayed.

At the end of the practice trial, the message **Well done, you have completed this part. Total points XXX** is displayed.

That was the practice part – well done.

Fixed win assessed stage

Say:

Now we'll try playing for some more points. It will be just the same as the practice part, and there will be different colours on every turn. Again, you will start with 100 points, and you have to decide whether there are more (colour 1) boxes or more (colour 2) boxes.

You will win 100 points if you choose the correct colour, regardless of how many boxes you open, and you can open as many boxes as you wish.

You will lose 100 points if you get it wrong.

Try to win as many points as you can.

Press **SPACE** to begin the next part of the test.

The subject has to touch at least one box in the 5 x 5 array before they can use the coloured panels at the bottom of the screen to indicate which colour they wish to choose.

When the subject has touched one of the panels at the bottom of the screen, the message **Correct! Win 100 points** or **Wrong! Lose 100 points** is displayed.

At the end of the trial, the 25 grey boxes reappear on the screen. The speed at which they reappear for the next trial will depend on how quickly the subject made a decision in the previous trial, so that there is never less than a 30 second gap between trials. If necessary, say:

If necessary, remind the subject to touch the boxes and choose the colour of which there are more boxes using the following (optional) prompts:

At the end of this block, the message **Well done, you have completed this part. Total points XXX** is displayed.

Let's wait until all the boxes are back on screen before the next turn starts.

It is entirely up to you how many boxes you open before you decide. When you have decided, touch that colour panel at the bottom of the screen.

Try touching one of the boxes now.

And another box.

Touch some more boxes until you are ready to decide, then touch one of the panels at the bottom of the screen.

Well done, that's the end of that part.

Decreasing win assessed stage

Say:

Now we'll try playing for some more points.
The way you win points this time is slightly different.

Again, you'll start with 100 points.

However, on each of these turns, the amount you can win starts at 250 points and will go down by 10 points with **every box you open**, so the earlier you make your decision, the more points you will win, if you get it right.

You will lose 100 points if you get it wrong, regardless of when you make your decision.

Press **SPACE** to begin the next part of the test, and say:

Try to win as many points as you can.

The subject has to touch at least one box in the 5 x 5 array before they can use the coloured panels at the bottom of the screen to indicate which colour they wish to choose.

When the subject has touched one of the panels at the bottom, of the screen, the message **Correct! Win XXX points** or **Wrong! Lose 100 points** is displayed. If necessary, say:

Let's wait until all the boxes are back on screen before the next turn starts.


At the end of this block, the message **Well done, you have completed this part. Total points XXX** is displayed.

Well done, that's the end of the test.

Press **SPACE** to end the test.

IST administration script (decreasing-win fixed-win)

Fixed-win practice stage

With the IST start screen displayed, press  to begin the test.

Explain the test to the subject as follows, indicating the appropriate areas of the screen.

Indicate the grey boxes and the coloured panels.

Encourage the subject to touch a box.

Ask the subject to touch another box.

If the subject is hesitating, prompt with:

You are about to play a game in which you can win points. The game will take about twelve minutes to complete. It consists of a short practice part and then two main parts. On each main part there will be 10 turns. On every turn, you will be able to see 25 boxes on the screen.

To start with, all the boxes will be grey, like they are at the moment. When you touch a box, it opens and shows one of two colours. You have to decide whether there are more blue boxes, or more yellow boxes, and then touch the panel of that colour at the bottom of the screen.

If you make a correct decision, you win 100 points, and if you make a wrong decision you lose 100 points.

You will start with 100 points. Try to win as many more points as you can.

Try touching one of the boxes now.

And another box.

Touch some more boxes until you are ready to decide, and then touch one of the panels at the bottom of the screen.

The subject must touch at least one box in the 5 x 5 array before they can use the coloured panels at the bottom of the screen to indicate which colour they wish to choose.

When the subject has touched one of the panels at the bottom of the screen, the message **Correct! Win 100 points** or **Wrong! Lose 100 points** is displayed.

At the end of the practice trial, the message **Well done, you have completed this part. Total points XXX** is displayed.

That was the practice part – well done.

Decreasing win assessed stage

Press **SPACE** to begin the next part of the test, and say :

Now we'll try playing for some more points. The way you win points this time is slightly different.

Again, you'll start with 100 points.

However, on each of these turns, the amount you can win starts at 250 points and will go down by 10 points with **every box you open**, so the earlier you make your decision, the more points you will win, if you get it right.

You will lose 100 points if you get it wrong, regardless of when you make your decision.

Try to win as many points as you can.

The subject has to touch at least one box in the 5 x 5 array before they can use the coloured panels at the bottom of the screen to indicate which colour they wish to choose.

When the subject has touched one of the panels at the bottom, of the screen, the message **Correct! Win XXX points** or **Wrong! Lose 100 points** is displayed.

At the end of the trial, the 25 grey boxes reappear on the screen. The speed at which they reappear for the next trial will depend on how quickly the subject made a decision in the previous trial, so that there is never less than a 30 second gap between trials. If necessary, say:

If necessary, remind the subject to touch the boxes and choose the colour of which there are more boxes using the following (optional) prompts:

Let's wait until all the boxes are back on screen before the next turn starts.

It is entirely up to you how many boxes you open before you decide. When you have decided, touch that colour panel at the bottom of the screen.

Try touching one of the boxes now.

And another box.

Touch some more boxes until you are ready to decide, then touch one of the panels at the bottom of the screen.

At the end of this block, the message **Well done, you have completed this part. Total points XXX** is displayed.

Well done, that's the end of that part.

Fixed win assessed stage

Say:

Now we'll try playing for some more points. It will be just the same as the practice part, and there will be different colours on every turn.

Again, you will start with 100 points, and you have to decide whether there are more (colour 1) boxes or more (colour 2) boxes.

You will win 100 points if you choose the correct colour, regardless of how many boxes you open, and you can open as many boxes as you wish.

You will lose 100 points if you get it wrong.

Press **SPACE** to begin the next part of the test, and say:

Try to win as many points as you can.

At the end of each trial, the grey boxes reappear on the screen and the subject's current points total is displayed below. If necessary, say:

Let's wait until all the boxes are back on screen before the next turn starts.

At the end of this block, the message **Well done, you have completed this part. Total points XXX.** is displayed

Well done, that's the end of the test.

The test ends.