

# Assignment 1 – Extended Reaction Time Experiment

[Date presented (week 5)]

1)

## Study design

- Research Question: **Does the colour of image Impact Reaction Times?**
- We conducted an experiment with three different conditions. The independent variables were the three different colours. The dependent variables were the reaction time of each colour.
- The user had the opportunity to click a box, which changes colour simultaneously.
- After the individual has clicked the box 30 times, these results are recorded in a csv file.
- The reaction time of each colour is then recorded and displayed in a csv file.
- Our hypothesis was: The red square would have the fastest reaction time. When humans see red, their reactions become faster and more forceful.
- Professor of psychology at the University of Rochester explains that red enhances our physical reactions because it is seen as a danger cue [1]. This is not a surprising assumption as a lot of serious emergency situations use the colour red. Also, traffic lights use the colour red to make a car stop moving.



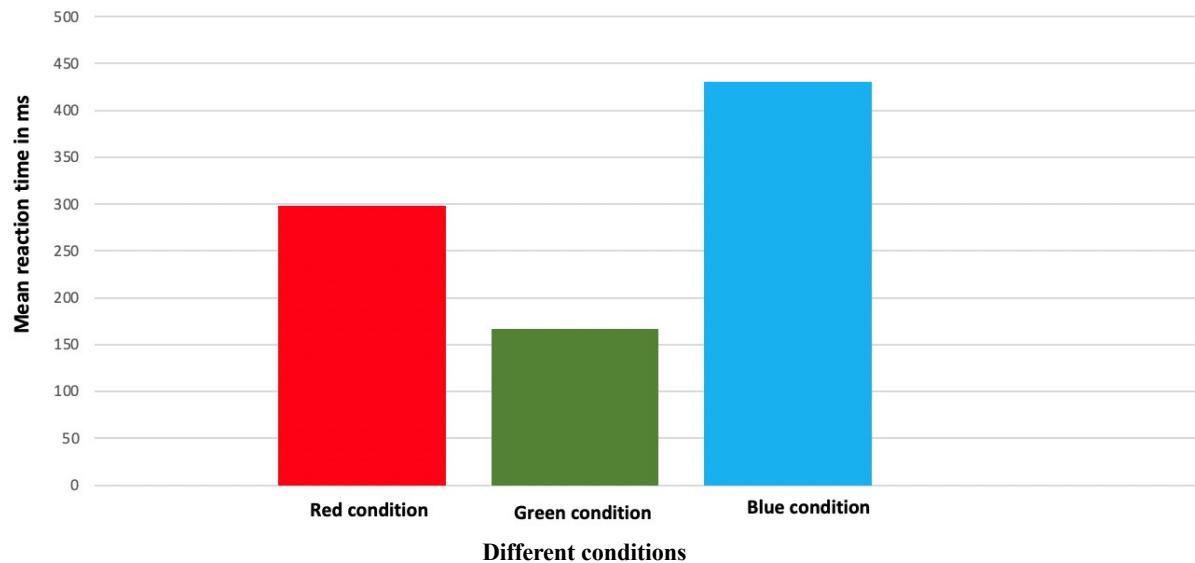
You have ended the experiment and your results can be collected in a csv file.

[Close](#)

-The experiment was run with 8 participants who take the SCC 202 module. Each participant completed 10 trials. This is equivalent to 30 clicks. Each participant then completed 10 trials that was used for data collection. The responses in the test trials were not as quick as the responses in the data collection trials.

-We have three different bars, where the average was taken of all the red, green, and blue reaction times of the various participants.

## Average of the reaction times of the participants



### Study results

-The result indicated that green had the best reaction time of 167.14ms (2 decimal places) and blue had the lowest reaction time (430.5ms, 2 decimal places). This didn't meet our expectations. Nonetheless, in their review of literature, Venkatesh et al has reported that green colour evokes a faster response due to its stronger stimulation on the visual receptors [2]. Therefore, this finding is not unreasonable.

### Experimental source code

The source code was modified. It is easier to understand a program if you write it yourself. We used the Csv function provided in the reaction time experiment to export the data.

```
// register onclick event listener for the box on the page
document.getElementById("box").onclick = onDivClick;

// keep track of how many times the box has been clicked
var index = 0;

// stores the "current time"
var timenow = 0;

// stores the time the first click happens and the second click happens respectively
var firstClickTime = 0;
var secondClickTime = 0;
var thirdClickTime=0;

let scores_red;
let scores_green;
let scores_blue;
var trials =10;
var trialCounter =0;
hasChanged = false;

document.addEventListener("keydown", onKeyPressed);
```

```
function onDivClick(e) {
  var div2 = document.createElement("div");

  // style our newly created div
  div2.style.height = "200px";
  div2.style.width = "200px";

  // cycles every 3 clicks
  if (index%3 == 0) {
    //incorporated the counter to keep track of the
    trialCounter++;
    div2.style.backgroundColor = "red";
    const d = new Date(); // make a new date
    timenow = d.getMilliseconds(); // get current time from date
    firstClickTime = timenow; // set firstClickTime
    var reactionTime = document.createElement("p");
    reactionTime.innerHTML = firstClickTime;
    document.body.appendChild(reactionTime);
    scores_red=[];
    scores_red.push("div")
  } else if (index%3 == 1) {
    trialCounter++;
    div2.style.backgroundColor = "green";
    const d = new Date();

    timenow = d.getMilliseconds();
    secondClickTime = timenow;
    var reactionTime = document.createElement("p");
    reactionTime.innerHTML = secondClickTime;
    document.body.appendChild(reactionTime);
    scores_green=[];
    scores_green.push("div")
  } else {
    trialCounter++;
    div2.style.backgroundColor = "blue";
    const d = new Date();
    timenow=d.getMilliseconds();
    thirdClickTime=timenow;
    // make a new element for the diff to go into
    var reactionTime = document.createElement("p");
    reactionTime.innerHTML = thirdClickTime; // put diff in <p>
    document.body.appendChild(reactionTime); // put on page
    scores_blue=[];
  }
}
```

### References

1. Elliot, Andrew J.; Aarts, Henk. **Perception of the color red enhances the force and velocity of motor output.** *Emotion*, Vol 11(2), Apr 2011, 445-449
2. Venkatesh D., Ramachandra D. L., Rajan B. K. **Impact of psychological stress, gender, and colour on visual response latency.** *Indian Journal of Physiology and Pharmacology*. 2002;46(3):333–337

## Assignment 2- Reaction time Experiment

[Date presented (week 10)]

- We pass in the parameter target\_size into the function computeDuration.
- target\_size is assigned to a size of 10px, 30p, or 50 px.
- So, random size of target (10px,30px,50px) appear in this case Red circles. - Duration variable that computes duration of target(Red circles) on the display screen.

```
// Choose the size of the target from 10px, 30px, 50px
let target_size = 10 + 20 * Math.floor(Math.random() * 3);

function computeDuration(target_size) {
    // Compute the duration for which the target will be visible
    // based on the round number and the target size
    // and return it
    let duration = 100000 / Math.log(round + 1) + 1000;
    duration = duration / Math.sqrt(target_size);
    return duration;
}

// Compute the duration for which the target will be visible
let duration = computeDuration(target_size);
// console.log("duration: " + duration);
```

- Describe how you arrived at parameter settings. It is fine if certain parameters are determined by trial and error, but you should discuss how they could also be determined systematically (short paragraph).
- The parameter target\_size is passed as it computes different duration for different targets(Red circles). This is because targets change in sizes each time after each round and this helps in easy carrying out the computation.
- Explain the “logic” of how to compute the display time (short paragraph).
  - The Duration variable computes the display time. Duration variable returns for how long a target appears on display randomly . The greater the duration the easier would be the gameplay and vice versa.
  - variable round is incorporated such that, when the number of round increases the function returns smaller duration with computation .
  - This smaller duration thus increases the difficulty level of the user
- Include relevant parts of the source code for reference.

```

function getPosition(distance) {
    // Generate a random angle between 0 and 2π
    let angle = Math.random() * 2 * Math.PI;

    // Compute the x and y coordinates of the target around the center
    let x = Math.cos(angle) * distance + width / 2;
    let y = Math.sin(angle) * distance + height / 2;

    console.log("x: " + x + ", y: " + y);

    // Return the coordinates as an object
    return { x: x, y: y };
}

```

```

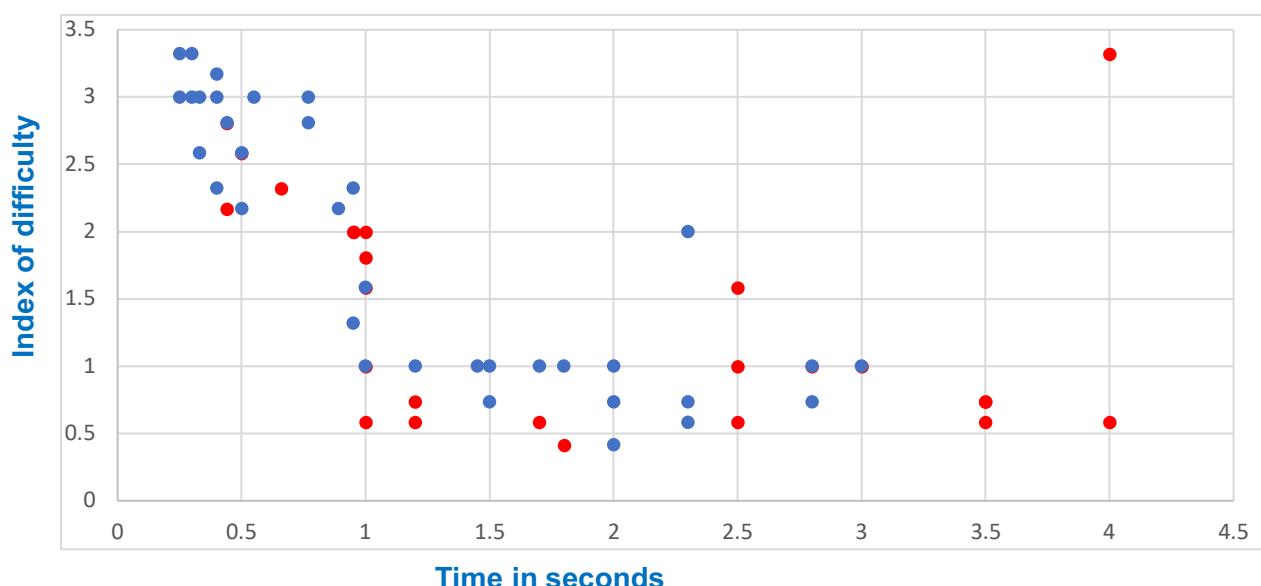
function computeDuration(target_size) {
    // Compute the duration for which the target will be visible
    // based on the round number and the target size
    // and return it
    let duration = 100000 / Math.log(round + 1) + 1000;
    duration = duration / Math.sqrt(target_size);
    return duration;
}

```

2. Evaluate the game with at least 5 participants (fellow students).

- Collect data for each round, to produce a scatter plot (can be done in Excel). On one axis, it should show how long a target is shown, and on the other axis the index of difficulty for pointing at the target. The data points should be blue for successful hits, and red if the round was unsuccessful.

Scatter plot of index of difficulty against time



- Discuss what the plot shows about player performance and the behaviour of your game. (max. 100 words, in a bullet list of your main observations).
- The Plots shows about different players different performance. The player tends to successfully click the targets when targets appear to be for longer duration,
- This is because they have enough time to click the target before it disappears.
- The user also tends to successfully hit the target when the target size is big enough. This is due to its width being greater and hence index of difficulty becomes small and the user can click the target.
- Every round starts after a single target is clicked or disappeared without clicking
- so if the target appears near the button after every round it will be easier for the user to get hold of their targets even with less duration.
- Targets become difficult to hit when their index of difficulty increases.

```

const red = document.querySelector(".red");
const score_element = document.querySelector("#score");
const green = document.querySelector(".green");
const round_element = document.querySelector("#round");

// Initialize the game state
let score = 0;
let round = 0;

// Creating data object to store the game state
let data = [["Round", "Distance", "Target Size", "Duration", "Score"]];
let data_temp = [];

const max_round = 60;

// Set the dimensions of the game area
const height = 768;
const width = 1024;

// Listen for clicks on the green circle
document.querySelector("#home-circle").addEventListener("click", startRound);

function getPosition(distance) {
  // Generate a random angle between 0 and 2π
  let angle = Math.random() * 2 * Math.PI;

  // Compute the x and y coordinates of the target around the center
  let x = Math.cos(angle) * distance + width / 2;
  let y = Math.sin(angle) * distance + height / 2;

  // console.log("x: " + x + ", y: " + y);

  // Return the coordinates as an object
  return { x: x, y: y };
}

function showTarget(size, distance, duration) {
  // Get the target element
  let target = document.querySelector("#target");

  // Set the size of the target
  target.style.width = size + "px";
  target.style.height = size + "px";
}

```

```

// Set the position of the target
let position = getPosition(distance);
target.style.left = position.x + "px";
target.style.top = position.y + "px";

// Show the target
target.style.display = "block";

// Hide the target after the given duration
setTimeout(function () {
  target.style.display = "none";
}, duration);

function computeDuration(target_size) {
  // Compute the duration for which the target will be visible
  // based on the round number and the target size
  // and return it
  let duration = 100000 / Math.log(round + 1) + 1000;
  duration = duration / Math.sqrt(target_size);
  return duration;
}

function hitTarget() {
  // Increment the score
  score++;

  // Update the score in the HTML
  document.querySelector("#score").innerHTML = "Score: " + score;

  resetRound();

  // Store the score value
  data_temp.push(score);

  console.log(data_temp[0], data_temp[1], data_temp[2], data_temp[3], 1);

  // Push the data to the data object
  data.push(data_temp);
}

function startRound() {
  data_temp = [];
  // Increment the round number
  round++;
}

```

```

// If the game is over, display the score and return
if (round > max_round) {
  document.querySelector("#score").innerHTML = "Score: " + score;

  // Store the data in a csv file
  fs.writeFile(
    "people.csv",
    data.map(d => d.join(",")).join("\n"),
    (err) => {
      if (err) throw err;
      console.log("The file has been saved!");
    }
  );
}

return;
}

// Choose the size of the target from 10px, 30px, 50px
let target_size = 10 + 20 * Math.floor(Math.random() * 3);

// Choose the distance of the target from the center using a normal distribution with mean 300 and standard deviation 100
let target_distance =
  300 + 100 * (Math.random() + Math.random() + Math.random() - 1.5);
// console.log("target_distance: " + target_distance);

// Compute the duration for which the target will be visible
let duration = computeDuration(target_size);
// console.log("duration: " + duration);

// Show the target
showTarget(target_size, target_distance, duration);

// Listen for clicks on the target
document.querySelector("#target").addEventListener("click", hitTarget);

// Hide the green circle
document.querySelector("#home-circle").style.display = "none";

// Stop listening for clicks on the green circle
document
  .querySelector("#home-circle")

```

```

  // Data temp
  data_temp = [round, target_distance, target_size, duration];

  // Wait for the duration of the round and then reset the round
  setTimeout(resetRound, duration);

  // Store the score value
  data_temp.push(score);

  console.log(data_temp[0], data_temp[1], data_temp[2], data_temp[3], 0);

  // Push the data to the data object
  data.push(data_temp);
}

function resetRound() {
  // Hide the target
  document.querySelector("#target").style.display = "none";

  // Make the green circle reappear
  document.querySelector("#home-circle").style.display = "block";

  // Listen for clicks on the green circle
  document.querySelector("#home-circle").addEventListener("click", startRound);

  // Stop listening for clicks on the target
  document.querySelector("#target").removeEventListener("click", hitTarget);
}

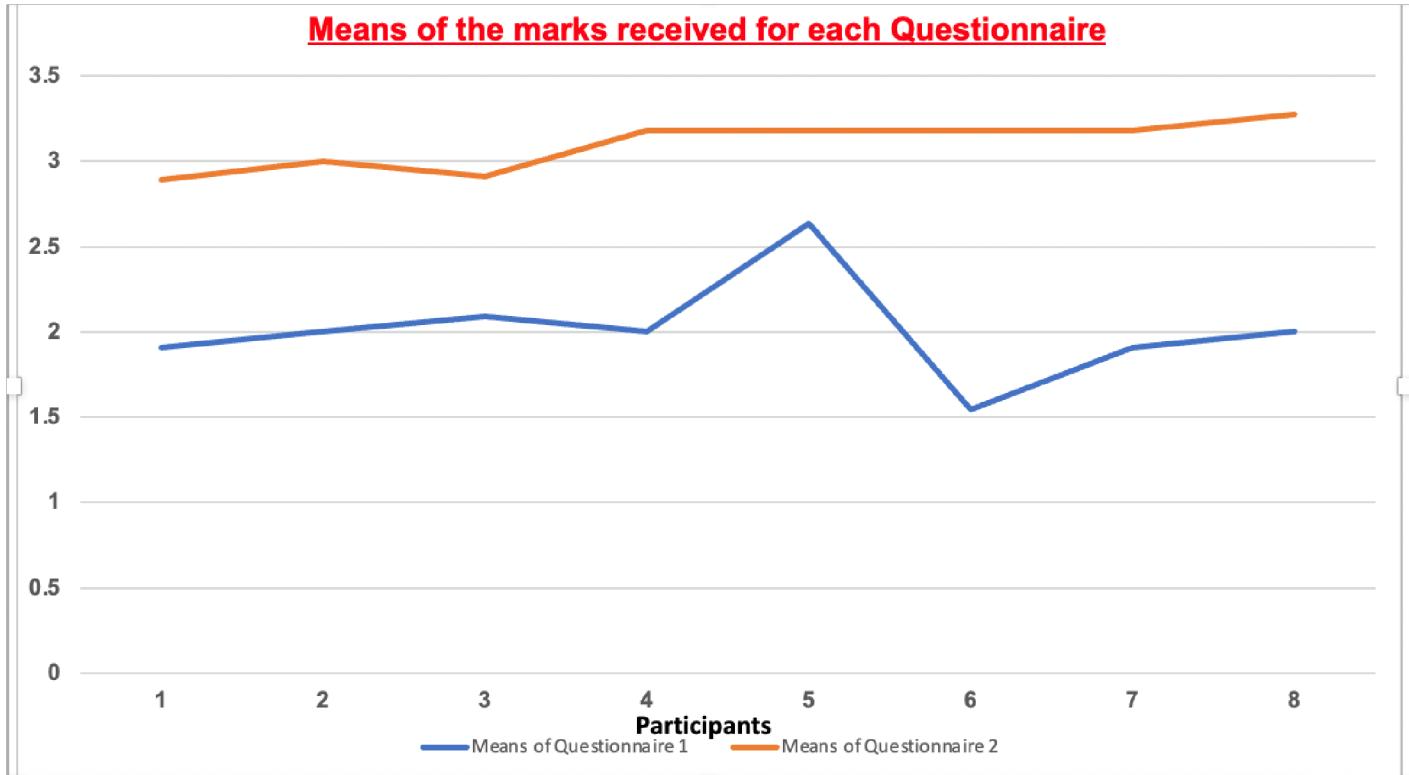
```

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <title>Whack-A-Mole Game</title>
5      <meta name="viewport" content="width=device-width, initial-scale=1" />
6      <meta charset="utf-8" />
7      <meta http-equiv="X-UA-Compatible" content="ie=edge" />
8      <style>
9          .green-circle {
10              height: 30px;
11              width: 30px;
12              background-color: #green;
13              /* MAKE THE DOT AT THE CENTER OF THE SCREEN */
14              position: absolute;
15              top: 50%;
16              left: 50%;
17              transform: translate(-50%, -50%);
18              border-radius: 50%;
19          }
20          .red-circle {
21              height: 30px;
22              width: 30px;
23              background-color: #red;
24              /* Hide it */
25              display: none;
26              /* MAKE THE DOT AT THE CENTER OF THE SCREEN */
27              position: absolute;
28              top: 50%;
29          }
30      </style>
31  </head>
32  <body>
33      <div id="game">
34          <h2 id="round">Round: 1</h2>
35          <h2>Your score:</h2>
36          <h2 id="score">0</h2>
37          <h2>Time Left:</h2>
38          <!-- Add the game elements here -->
39          <div id="home-circle" class="green-circle"></div>
40          </div>
41          <div id="target" class="red-circle"></div>
42      </div>
43      <script src="app.js"></script>
44  </body>
45  </html>
46
47
48
49
50
51
52
53
54

```

## Assignment 4





## **Appendix**

**Appendix Item 1-** Participation information sheet (Assignment 4)

**Appendix Item 2-** Questionnaire for task, based on the navigation system (Assignment 4)

**Appendix Item 3** - Questionnaire for task 2, based on the usability design interface. (Assignment 4)

**Appendix Item 4** - The research ethics form (Assignment 4)

### **Appendix Item 1**

## **Participant information sheet**

Our names are Atiya Mahboob and Payal Shah and we are undergraduate students at The School of Computing & Communications at Lancaster University, and we would like to invite you to take part in a research study comparing two interfaces, one based on navigation and the other based on usability principles. Please take time to read the following information carefully before you decide whether you wish to take part.

What is the study about?

This study aims to compare the usability and efficiency of two websites when gaining information about a specific mental illness: navigation-based interface and usability-based interface. The results will be used for discussion in the SCC202 Workshops. We are looking for voluntary participants that want to participate in this study. I would be very grateful if you would agree to take part in this study.

What will I be asked to do if I take part?

If you decided to take part, this will involve the following:

Before the study, we will ask you to fill in a short consent form, which takes 1 minute to complete. You will be asked to learn about two different mental illnesses via two different systems. You will be given a maximum of 3 minutes to learn about a certain mental illness. However, you do not need to use the full time. You will use your own device, or one provided by the researcher. There will be one task repeated once for each system.

During the tasks, we will record time with a stopwatch and note down observations of challenges or errors you encounter while you are using the system. You will have an opportunity to rest in between each task. Between each task, you will also answer a questionnaire with questions based on each mental illness. The study will take 10-15 minutes to complete.

### **Consent form**

Welcome, and thank you for taking the time to take part in our study on navigation and usability principles.

Please sign the consent form before you begin the study.

The study should take around 10 minutes of your time.

Afterwards, please fill out the questionnaires after each task

## **CONSENT FORM**

**Project Title:** Comparison of two interfaces, based on navigation and design principles **Name of Researchers:** Atiya Mahboob, Payal Shah

**Email:** [a.mahboob@lancaster.ac.uk](mailto:a.mahboob@lancaster.ac.uk), [p.p.shah1@lancaster.ac.uk](mailto:p.p.shah1@lancaster.ac.uk)

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

**Please select each box**

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
3. If I am participating in the study I understand that any information disclosed within the study remains anonymous, and I will not discuss the study with or in front of anyone who was not involved unless I have the relevant person's express permission.
4. I understand that any information given by me may be used in future reports, academic articles, publications or presentations by the researcher/s, but my personal information will not be included and I will not be identifiable.
5. I understand that my name/my organisation's name will not appear in any reports, articles or presentation without my consent.
6. I understand that data will be kept according to University guidelines for a minimum of 10 years after the end of the study.
7. I agree to take part in the above study.

Q3

Date

- Q4

By clicking this box you confirm that you wish to proceed with the study, and grant consent.

- I consent

Q5

*All data collected is delinked from your consent form and remains anonymous for analysis.*

## Appendix Item 2

**Lancaster University** 

For the following questions provide answers that are exactly the same as the wording on the navigation system. Do not try to use prior knowledge to answer the questions. Assume what is written is not deceptive.

What is a common myth when it comes to men having postnatal depression?

Name two causes of postnatal depression in men

How can we prevent postnatal depression from taking place with women?

What is an example of a stressful life event that can cause postnatal depression?

What can happen if postnatal depression is left untreated?

Name 3 symptoms of postnatal depression in men.

What makes postnatal depression different in men and women?

Give a 2 symptoms that overlap when it comes to the symptoms of men and women who have postnatal depression.

Name 4 self help methods for dealing with postnatal depression

Name 4 treatments for postnatal depression in men?



Please provide any comments about this navigation system. This includes things that could be improved about this interface and whether you believe this is a great way to gain information about a specific disorder.



## Appendix Item 3



Answer the following questions about this anxiety disorder. Ensure that your answers are as close to the wording on the system. Do not try to use prior knowledge to answer the questions. Assume what is written is not deceptive.

Name two physical and two mental symptoms of a panic disorder

Name 3 causes of a panic attack

What are the three ways that someone can prevent a panic attack from taking place?

Describe what is meant by the statement "in fear of fear"?

What are the three medicinal treatments for panic attacks?

What is the third step of the steps to having a panic attack?

What is the fifth step of the steps to having a panic attack?

How many steps are there in the steps to having a panic attack?

What is the second step to the steps of having a panic attack?



Give an example of a psychological therapy

Please provide any information about this interface based on usability principles. This includes what could be improved about the interface, what was effective about the design etc.



## SCC Undergraduate Ethics Form

### 1. Basic information

**Name of Student(s):** Atiya Mahboob, Payal Shah

**Student(s) ID:** 38554097, 38488825

**Course:** SCC.202 Human Computer Interaction

**Name of Course Convenor:** Prof. Hans Gellersen

**Project Title:** Comparison of two interfaces, based on usability principles

**Aim(s) of the Research Project:**

The aim is to compare two approaches of navigating a specific interface in terms of perceived usability. The aim is to see how differences in the design of the interface can impact the user's ability to complete a specific task efficiently. The aim is to see if we can effectively design user interfaces in a way that allows users to complete tasks in the optimal way.

In line with GDPR the lawful purpose of this research is to conduct an HCI research project into **usability of different interfaces** which is a task in the public interest.

<https://www.lancaster.ac.uk/research/participate-in-research/data-protection-for-research-participants/>

### 2. Proposed research methods and analysis

Provide details about:

- The research design will be a survey. Each participant will be asked to complete the task under similar conditions.
- The participants will be asked to look for information about a specific mental illness. Each participant will be given two different tasks to complete based on a specific mental illness.
- The participants will be asked to answer a series of questions about that specific mental illness after they have completed finding the information. The participants will be given a maximum of 3 minutes to navigate the system and find the relevant information.
- The first website will have an interface that will have the information stored in a drop down. The user will have to navigate this to get the relevant information. The first website will give information about depression. The participant will be asked to learn about post-natal depression. The website address is: <https://www.mind.org.uk/information-support/types-of-mental-health-problems/depression/causes/>.

When completed this form **MUST** be uploaded to Moodle. Your TA will check your ethics forms before the workshop in week 8. You are also advised keep a copy for your own records.

*How will participants be recruited?*

**By using snowball sampling (word of mouth), email lists (e.g. via the Teaching Office) or university group pages.**

**We do not advise using personal social media to reach out to strangers.**

*Does the research involve deception, trickery or other procedures that may contravene participants' informed consent, without timely and appropriate debriefing, or activities that cause stress, anxiety or involve physical contact?*

**No** (For the purposes of this assignment we recommend you keep things simple and safe)

*Does the research involve access to records of personal or other confidential information, including genetic or other biological information, concerning identifiable individuals, without their knowledge or consent?*

**No**

Does the research project & associated experiments potentially risk the physical safety of yourself or the participants?

**No**

*Does the research involve travel to areas where you might be at risk?*

**No**

#### **4. Information about non-human participants such as animals**

*If applicable, provide details about:*

*Does the research involve animals?*

**No**

#### **5. Data handling**

*Provide details about:*

*What type of data will be collected?*

**Quantitative data will be collected. The answers from each questionnaire will be recorded and marked against a specification. Some participants may not answer completely correctly but will still be awarded partial marks. The time taken for the participants to interact with each system will also be recorded. This is because some participants may finish interacting with the quicker. The data will be stored in an excel spreadsheet. Information about the participants background will not be recorded. This includes their demographics. If it is confirmed they are over 18, nothing else will be considered in terms of demographics.**

When completed this form **MUST** be uploaded to Moodle. Your TA will check your ethics forms before the workshop in week 8. You are also advised keep a copy for your own records.

*How will this be stored?*

**On Lancaster University's secure One Drive or an encrypted and password protected laptop owned by the researcher. No access will be given to anyone outside of the research team. You should not keep data on public machines or where others might see it.**

*What steps will be taken to ensure the anonymity of the data collected?*

**All materials will be fully anonymised, and no identifiable data will be used in writing or other outputs that may be viewed outside of the research team. Participants will be given an identifier such as P1, P2, P3 and referred to as such in any outputs.**

*What steps will be taken to ensure the confidentiality of the data collected? State how individual identifying information will be removed, where the data will be stored and who will have access to the data.*

**No individual identifying information will be asked.**

**Data will be stored securely on the Lancaster University OneDrive and will only be accessible by the researcher or teaching team for SCC202.**

## **6. Please complete all sections by ringing the appropriate answer.**

### **6.1 RISKS**

Do any aspects of the study pose a possible risk to participants' physical well-being (e.g. use of substances such as alcohol or extreme situations such as sleep deprivation)?	Y	N
Are there any aspects of the study that participants might find embarrassing or be emotionally upsetting?	Y	N
Are there likely to be culturally sensitive issues (e.g. age, gender, ethnicity etc.)?	Y	N
Does the study require access to confidential sources of information (e.g. medical, criminal, educational records etc.)?	Y	N
Might conducting the study expose the researcher to any risks (e.g. collecting data in potentially dangerous environments)?	Y	N
Does the intended research involve vulnerable groups (e.g. prisoners, children, older or disabled people, victims of crime etc.)	Y	N

### **6.2 DISCLOSURE**

Does the study involve covert methods?	Y	N
Does the study involve the use of deception, either in the form of withholding essential information about the study or intentionally misinforming participants about aspects of the study?	Y	N

## **3. DEBRIEFING**

When completed this form **MUST** be uploaded to Moodle. Your TA will check your ethics forms before the workshop in week 8. You are also advised keep a copy for your own records.

Do the planned procedures include an opportunity for participants to ask questions and/or obtain general feedback about the study after they have concluded their part in it? (You should provide this)	NA	<input checked="" type="checkbox"/> Y	N
---	----	---------------------------------------	---

#### 4. INFORMED PARTICIPATION/CONSENT

Will participants in the study be given accessible information outlining: a) the general purpose of the study, b) what participants will be expected to do c) individuals' right to refuse or withdraw at any time?	<input checked="" type="checkbox"/> Y	N
Will participants have an opportunity to ask questions prior to agreeing to participate?	<input checked="" type="checkbox"/> Y	N
Have appropriate authorities given their permission for participants to be recruited from or data collected on their premises (e.g. shop managers, head teachers, classroom lecturers)?	<input checked="" type="checkbox"/> Y	N

#### 5. ANONYMITY AND CONFIDENTIALITY

Is participation in the study anonymous?	<input checked="" type="checkbox"/> Y	N
If anonymity has been promised, do the general procedures ensure that individuals cannot be identified indirectly (e.g. via other information that is taken)?	<input checked="" type="checkbox"/> Y	N
Have participants been promised confidentiality?	<input checked="" type="checkbox"/> Y	N
If confidentiality has been promised, do the procedures ensure that the information collected is truly confidential (e.g. that it will not be quoted verbatim)?	<input checked="" type="checkbox"/> Y	N
Will data be stored in a secure place which is inaccessible to people other than the researcher?	<input checked="" type="checkbox"/> Y	N
If participants' identities are being recorded, will the data be coded (to disguise identity) before computer data entry?	<input checked="" type="checkbox"/> Y	N

If you disagree with the pre-filled statements, please consult the Helpdesk on Teams or your TA before proceeding!

#### 7. SUMMARY OF ETHICAL CONCERNs

If any of the boxes below require ticks, more detail may be required to get ethical approval. If none of the boxes require ticks, then it is reasonable to expect approval.

If you have answered 'YES' to any of the questions in Section 1 (risks), please tick the box	
If you have answered 'YES' to any of the questions in Section 2 (Disclosure/covert methods), please tick the box	

When completed this form **MUST** be uploaded to Moodle. Your TA will check your ethics forms before the workshop in week 8. You are also advised keep a copy for your own records.

If you have answered 'NO' to any of the questions in Section 3 (debriefing), please tick the box	<input type="checkbox"/>
If you have answered 'NO' to any of the questions in Section 4 (consent), please tick the box	<input type="checkbox"/>
If you have answered 'NO' to any of the questions in Section 5 (confidentiality), please tick the box	<input type="checkbox"/>

## 8. Declaration

I confirm that this is an accurate record of the project to be undertaken.

Student signature(s)

Date: 08/12/2022

Atiya Mahboob 08/12/2022  
 Payal Shah 08/12/2022

I confirm that I have read this proposal and agree that it is a clear and accurate assessment of the project to be undertaken. I have had this ethics form signed off by my TA during my workshop session.

When completed this form **MUST** be uploaded to Moodle. Your TA will check your ethics forms before the workshop in week 8. You are also advised keep a copy for your own records.

## Individual Contribution Statement

*Did all group members contribute to the coursework equally? NO~*

*If the contribution was not equal, is there a significant concern that should be accounted for when marking? YES*

*If yes to the previous, please explain your concern in 2-3 sentences:*

My partner completed assignment 2, which is unfinished. I completed almost all other assignments including assignment 3 and 4 and wrote up assignment 1. I don't mind this and do now want them to be penalised. I just don't want to be penalised if assignment 2 is not up to the level of the other assignments.