

# Design Dialogues Assessment 2

BUD|D- A USER-CENTRED SYSTEM USING AUGMENTED REALITY TO  
MANAGE MENTAL HEALTH AND ENCOURAGE INTERACTION IN THE  
LIONS GATE.

Word Count: 2950

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## 1.0 Introduction

The inspiration for this design came from considering the principles of permaculture and the context of the space itself and those who would use it. The intention of the garden to become a social space was central to the design as was the placement of the space being on a University Campus in close proximity to (and accessible from) the library. One of the biggest concerns facing the student population today is mental health and this design is intended to help manage/reduce stress. It is not intended to provide assistance for those suffering from serious health issues but will provide direction towards help for those that do require it. The idea is that the day-to-day purpose of the garden and the system would provide a physical and digital space for students to take a break from their studies, to interact and develop knowledge of nature around them. More importantly, the system would encourage these breaks and provide a service in the form of a game that would elicit joy and relaxation.

The idea for the game and the AR element was inspired by Pokémon Go, Angry Birds 'Pig Island' and Walla.me.



*Figure 1 Image of A player Locating a Character on Pokémon Go by Nintendo*

BUD|D will use Augmented Reality technology compatible with most smartphone cameras. There will be unique 3D objects placed around the garden that the application will be programmed to recognise using algorithms and video analysis as well as using GPS to recognise spaces (Guimarães, F., Figueiredo, M. & Rodrigues, J. 2015). The objects can be

added to or removed to progress the game over time. The recognition of an item will prompt animated graphics to be projected onto the screen where the user can interact with the projected item by collecting it and adding it to their own garden. A corner space in the Lion's Gate will be used for users to view and tend to their gardens in real time.

A primary objective was to encourage interaction with the space away from screens and to build knowledge and interactions with plants and nature, and so the challenges and levels will begin with the interface but will take place physically in the space. Users set a study session on the app by selecting an emoticon on the session page, and the game will encourage students to take breaks by timing alerts reasonably so as not to distract from study. BUD|D will keep users informed of events taking place in the garden and contain a section for users to easily access additional resources to help them manage their mental health. The dashboard will track their recorded moods and study time.

## 2.0 Design approach

For this project the chosen design approach is a blend of human-centred design and iterative design. It will also draw from ideas of green design as it is rooted in permaculture principles (Benyon, D. 2019, pp.211). Human-Centred design was chosen because the main objective of this application is to provide a service for university students and staff, therefore it is important to involve the intended users at every point of the design process to ensure that the design decisions being made result in a product that is useful, usable and enjoyable. Assessing and adapting the design is an important part of this process and therefore an Iterative Design approach will also be taken to weave the results of testing and feedback into the system.

### 3.0 Understanding

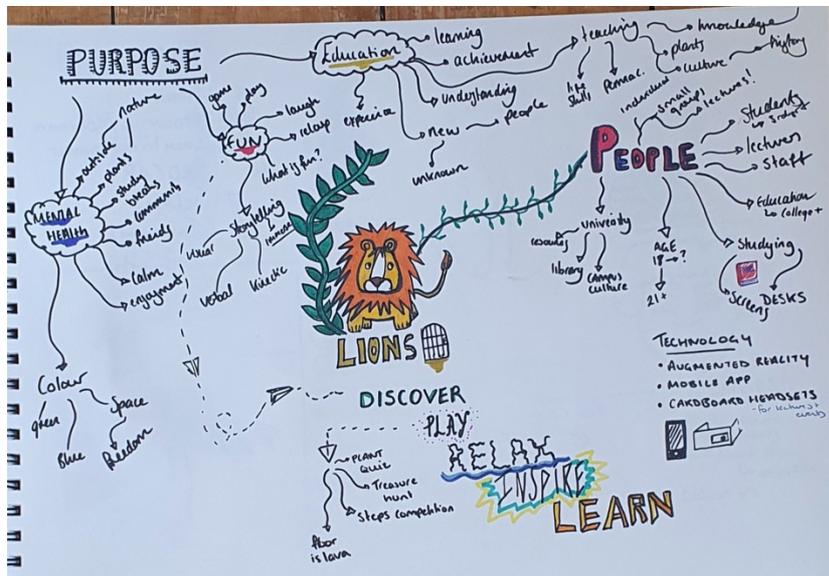


Figure 2 Brainstorm Sketch of PACT for the brief

### 3.1 User Interviews and Questionnaire

After brainstorming ideas and researching existing apps, services and technology the next step was to speak to intended users.

One to One interviews were chosen as the best way to generate relevant, qualitative data. I arranged one to one interviews with five participants fitting the intended user profile: full time students or office workers (to represent university staff). The intention was to discover current users practices around taking study or work breaks, their relationship with outdoor spaces and their understanding and thoughts around mental health services. I created a set of ten questions as a guide so that I could compare answers and identify common trends. Using a semi-structured approach (Benyon, D. 2019. pp. 151) created a more relaxed, conversational atmosphere which enabled me to delve deeper into specific comments. See Appendix A for the full interview script.

Secondly, I created a survey targeted to students and collected responses from 14 respondents. The questions were intended to gain quantitative data around study breaks and knowledge of the institution’s mental health resources. In designing the questionnaire, I kept in mind the importance of ensuring it was understandable, unambiguous, easy to analyse and generated relevant data (Benyon, D. 2019, pp. 160)

From collating the results of these methods I have identified common trends which will be used to elicit requirements for the system. A detailed analysis of the results can be found in appendix B.

### 3.1.1 Results:

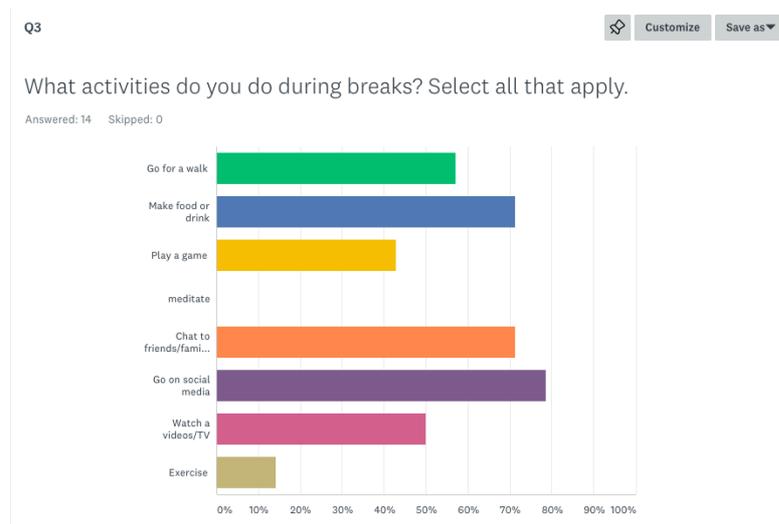


Figure 3 Breakdown of responses to survey question on activities respondents undertake during their breaks (graphic from SurveyMonkey.com)

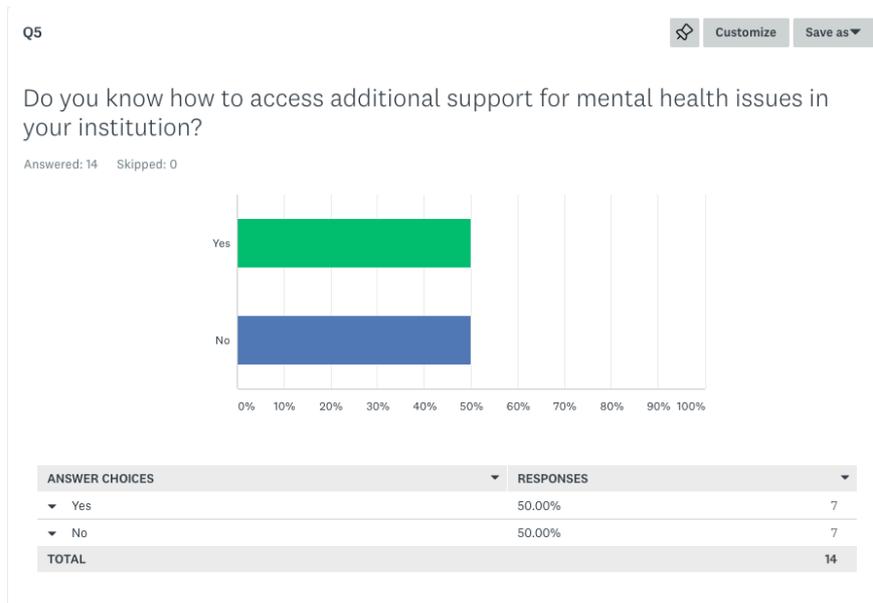


Figure 4 Graph showing that half of respondents are unaware of how to access additional support at Napier University (graphic from surveymonkey.com)

#### Common trends:

- Users know the importance of taking breaks but in reality, they forget or feel they don't have time to justify them.
- Majority of respondents were unsure when, where or how to use mental health support at their institution.
- Mobile applications (particularly social media) were used extensively during breaks
- Enjoyment of being outdoors and using nature as a way to relax and reset was unanimous.
- Socialising, exercise and fun were conducive to effective breaks.

This research highlighted the need for the following features:

- Alarm to remind students to take breaks
- UI to evoke a friendly, approachable and on-trend feel
- Easy access to further resources.

- 'Meditation' section needs re-brand as none of the participants selected meditation though many listen to audio

### 3.1.2 Review:

Using the quantitative and qualitative data from both techniques drew a bigger picture of user's needs. Feedback for the design of the survey from a colleague noted that the questions and answers were suitable, however the use of the word 'pastoral' may have caused some confusion as it can be interpreted in different ways.

## 3.2 Conceptual Scenario

Having completed extensive user research, I produced some user stories and personas to assist the design process (Appendix C), once I had an idea of the people who would use the system, how they would use it and when they would use it. I chose to create semi-concrete conceptual scenarios to assist with idea generation and identifying requirements (Benyon, D. 2019, pp.64).

### 3.2.1 Results:

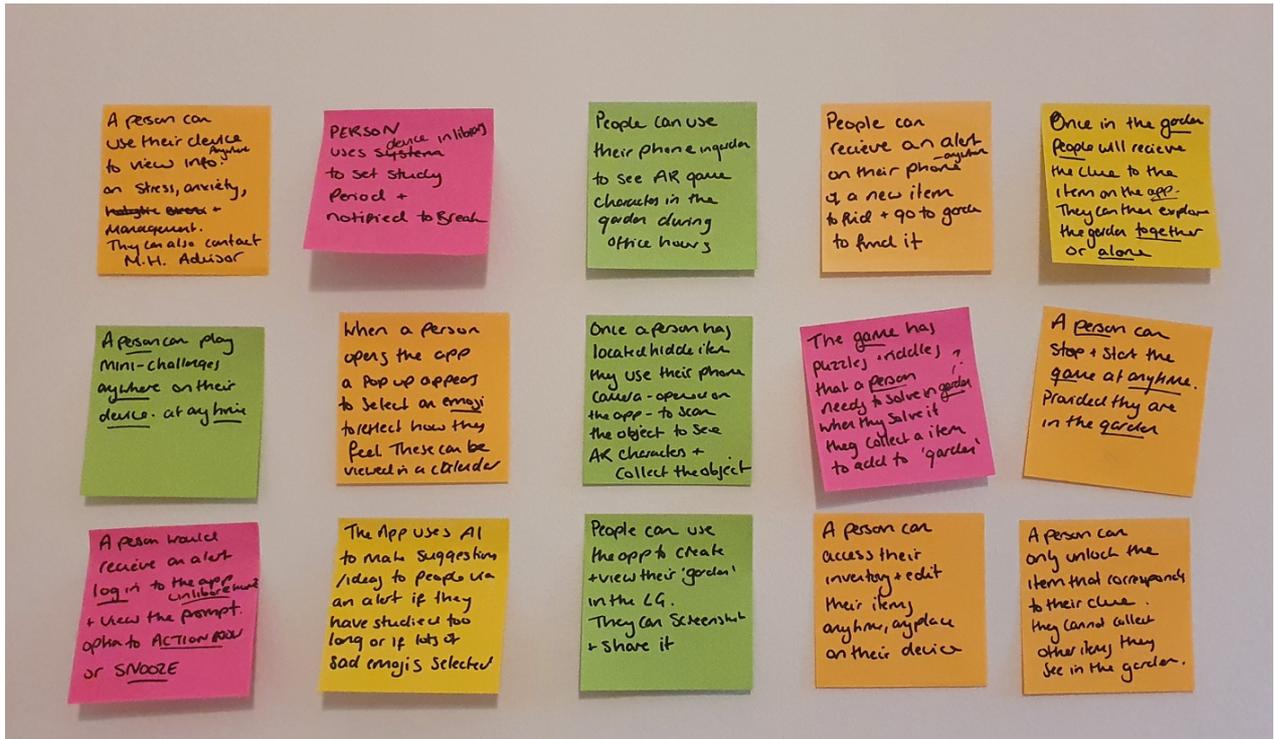


Figure 5 Image of Set of Conceptual Scenarios using post-it notes on a wall

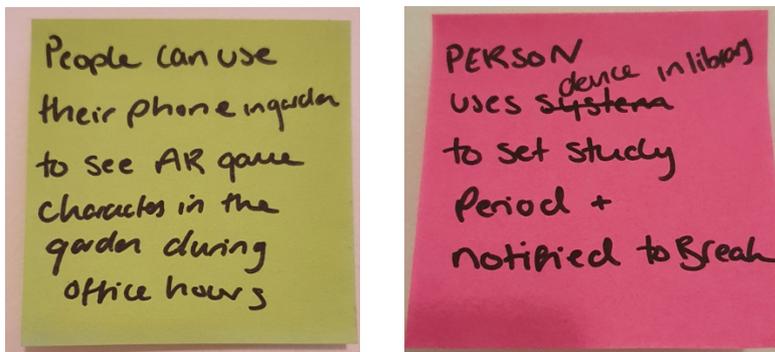


Figure 6 This conceptual scenario shows how the system would be used to regulate breaks. An iterated scenario on the board notes that the person could also use function at home.

Figure 7 Close up of a conceptual scenario imagining the context of use - this scenario highlighted that for safety and security people may only access the garden during the hours of 8am and 7pm Monday-Sunday

### 3.2.2 Review

The production of conceptual scenarios highlighted functions and requirements of the system that had not been considered before this point. It was a useful way to visualise how the system would work and what its most important features would be.

### 3.3 Requirements

These are the functional and non-functional requirements that the system will need to work to notify a user to take a break and to play the game. The use of MOSCOW rules here is to prioritise the requirements to retain control of the initial scope of the project (Benyon, D. 2019, pp.148).

#### 3.3.1 Results

Code	Summary	Rationale	MOSCOW
FUN01	Augmented Reality	For the game to work	M
FUN02	Alert Timer (30, 60, 90, 120, 180 mins)	notify users to remind them to break	M
NONF03	Bespoke Character Set	cohesive and recognisable characters for users to become familiar with	S
NONF04	Physical anchors in the Lions Gate space	This is crucial for the AR technology to work.	M
NONF05	Game Story	The game must have a compelling and engaging storyline and progression.	S
NONF06	Simple Interface	easy to navigate, calming colour scheme and uncluttered space	M
FUN07	Calendar Type Tracker	Track users' moods and study data	W

#### 3.3.1 Review

Requirements gathering is a key part of the design process and aid through all stages of design and development.

### 4.0 Envisionment

#### 4.1 Mood Boards

To visualise and communicate the look and feel of the app interface and the character set I created a series of mood boards. The idea was to ensure the colours used are calming, to

evoke feelings of space, and that the characters would be friendly and slightly fantastical for conviviality and fun.

#### 4.1.1 Results

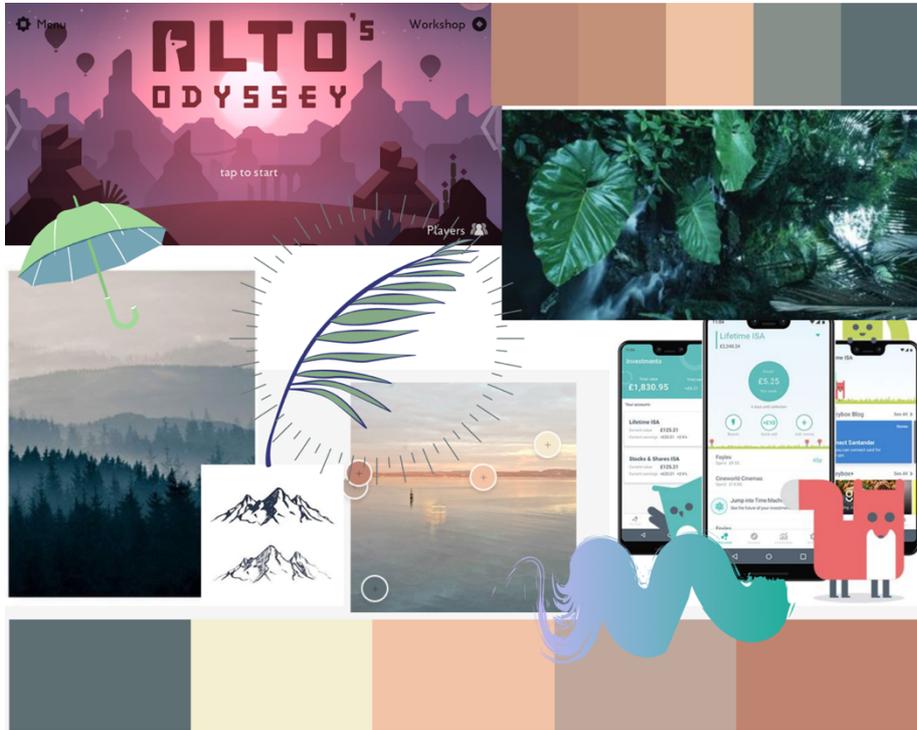


Figure 8 Colour Palette, Inspirational apps and imagery to convey the overall feeling of the application interface



Figure 9 Mood Board for character style inspiration

#### 4.1.2 Review

Mood boards are a quick way to visualise the app, this was a very useful way to visually record inspiration for the app and begin to make the design more cohesive. Initial feedback from users was positive, they liked the calming feeling and felt it was in keeping with the purpose of the system. The character set design will include brighter and contrasting colours to keep the feeling upbeat rather than melancholy.

#### 4.2 Sketches

Some initial sketches conveying the interfaces and UI elements. Sketching was chosen as a quick and effective way to generate ideas and highlight any issues with the design (Benyon, D. 2019, pp.184).

#### 4.2.1 Results

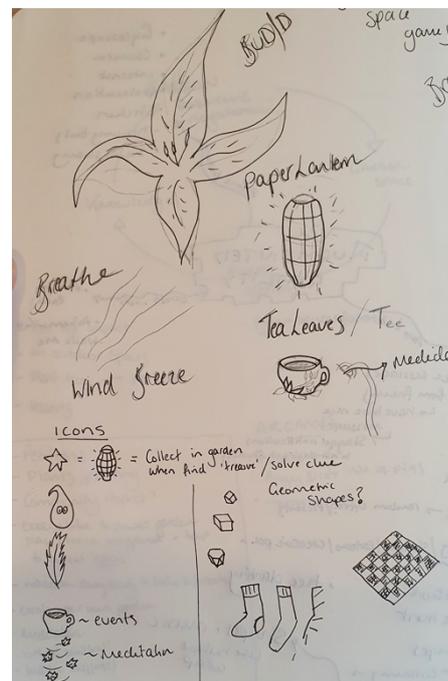
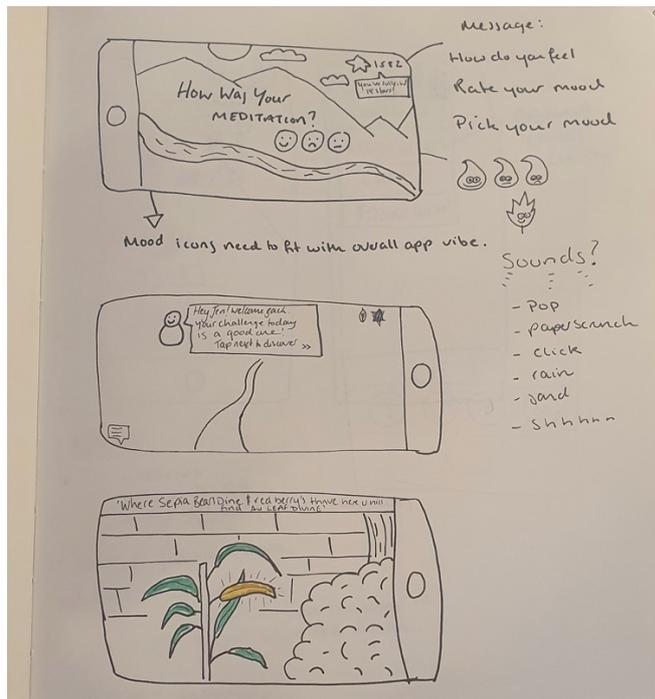


Figure 10 Sketches thinking about icons and imagery on the interface

Figure 11 Sketch communicating first the emotion record idea, and the in the game receiving a clue and finding the object

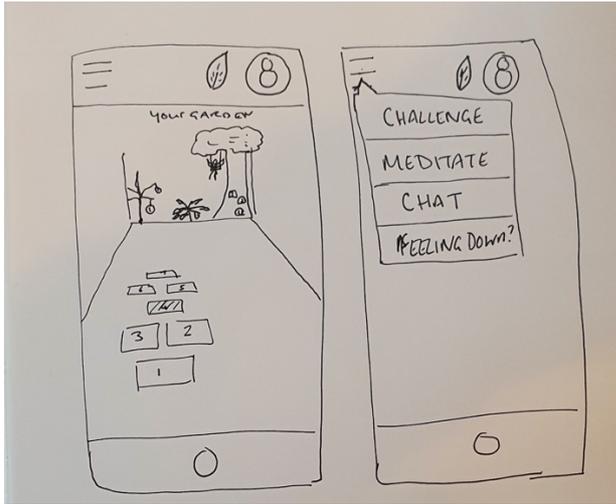


Figure 12 Sketch of the Virtual Garden and first ideas on the interface layout

#### 4.2.2 Story Board Sketch



Figure 13 Storyboard Style Sketch showing a user in the garden playing the game by pointing his device camera at the physical anchor in the garden

The storyboard technique (fig. 13) was used to show the interactive experience of collecting an item in the BUD|D game (Benyon, D. 2019, pp.186).

I then developed lo-fi prototypes using pen and paper of the app interface to show how a user might be able to navigate around the app (see fig. 17 & 18). These were developed with the ability to use them for testing for interaction and usability with users.

After receiving feedback from these tests, I created hi-fidelity prototypes in Figma to share with users and experts for evaluation on the whole system (see fig. 20-22).

#### 4.2.3 Review

The paper prototypes were simple and quick to produce which made them ideal for iterating on the designs as it was easy to change and adapt the screen layouts and labels. There was no UI design therefore the test results were limited to the relevancy of the information architecture and navigation elements rather than the entire UX.

The hi-fidelity prototypes took some more time to create, however as many of the most prominent issues with navigation and labelling had been resolved, committing the time to create them was acceptable. These were highly useful in communicating the whole UX to users and experts, however they would have benefited from being more interactive.

## 5.0 Testing

### 5.1 Test 1: Information Architecture Tree Test

As stated by Benyon & Carroll (Benyon, D. & Carroll, J., 2011, pp. 50) 'architecture should support locating specific objects through the use of indexes, clustering, categorization, tables of content and so on'. This system offers numerous functions therefore having a clear information architecture is critical for perceived ease of use.

Before creating the prototypes, I drafted a navigation diagram to visualise the layout of the system. I was uncertain how to label and where to locate some functions and decided to test these with prospective users to ensure the layout was logical and easy to navigate around.

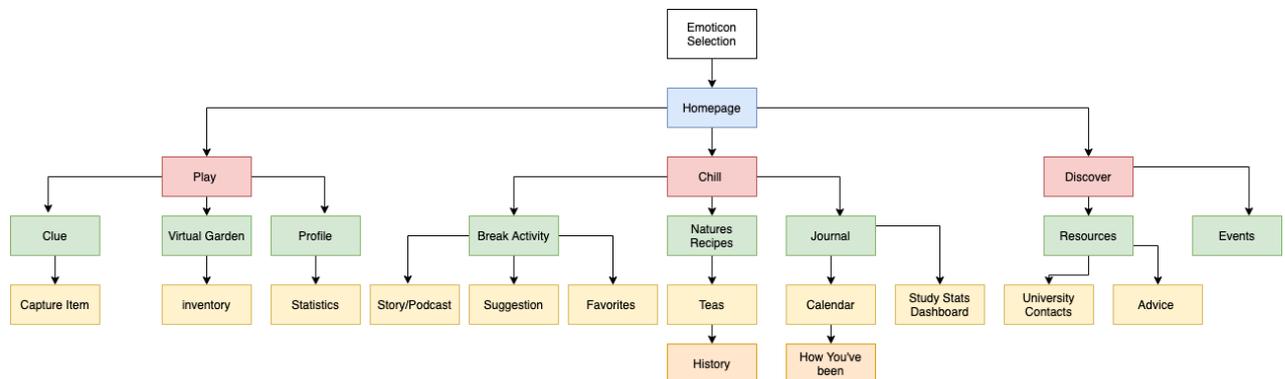


Figure 14 Initial Navigation Diagram for the BUD/D system

I enrolled three full-time students and created four scenarios for them to follow. These were designed to answer these questions:

- Do the names of sections correspond to the content when clicked on?
- Is it clear how to find contact details to speak to someone?
- Is it clear where to find advice on managing wellbeing?
- Is it clear how to start the game access and edit the virtual garden?
- Is it clear where to find recommendations for breaktime activities?

I wrote the sections onto post-it notes and then asked the participants to show me where they would look to complete each scenario (see fig. 16).

### 5.1.2 Results

- Participants unanimously found the word 'discover' confusing for any task involving finding information e.g. to find ideas for activities to do on a break.
- Using 'journal' also created a significant time lag in decision making.
- Users mental models were more familiar with the use of Diary over Journal
- All participants succeeded in locating and editing the Virtual Garden quickly.

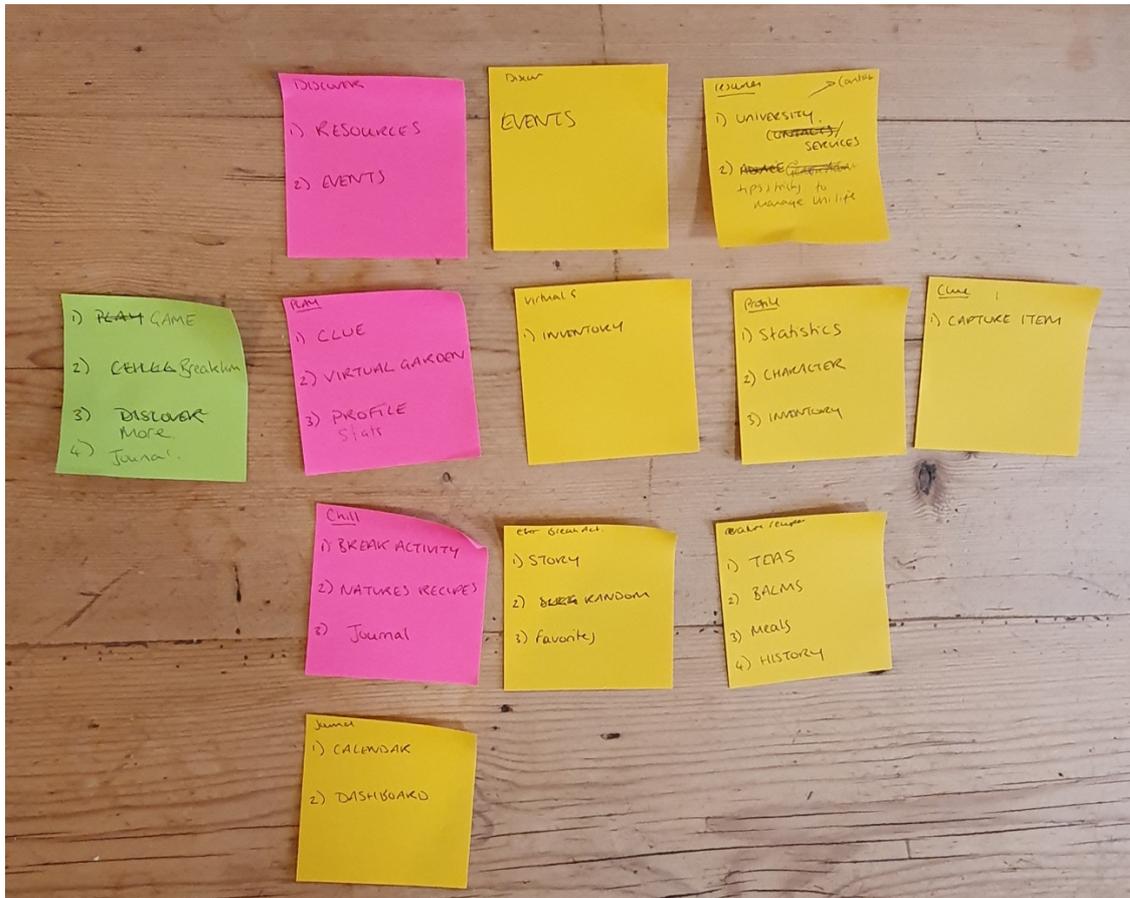


Figure 15 Post-Its used for Usability test of the BUD/D systems Information Architecture – edits were made based on results and re-tested

### 5.1.3 Review

This was a very useful activity which uncovered user’s mental models and the learnability of the system. It would have been beneficial to have access to more participants.

## 5.2 Test 2 – System Usability Survey

For the second test, I wanted to get a richer understanding of user’s ability to navigate through the system through object identification, exploration and wayfinding (Benyon, D. & Carrol, J. 2015, pp.70). I selected three new participants who were unfamiliar with the system to test the usability of selected elements using the paper prototypes.

I prepared a set of tasks that a user would do within the system and provided the participants with a quick introduction and some context. I sat with them as they interacted with the prototypes and talked me through their thought process. After the session I asked each participant to complete the System Usability Survey as created by John Brooke (Benyon, D. 2019, pp 261) as a quick and effective way to evaluate the usability of the system.

### 5.2.1 Results

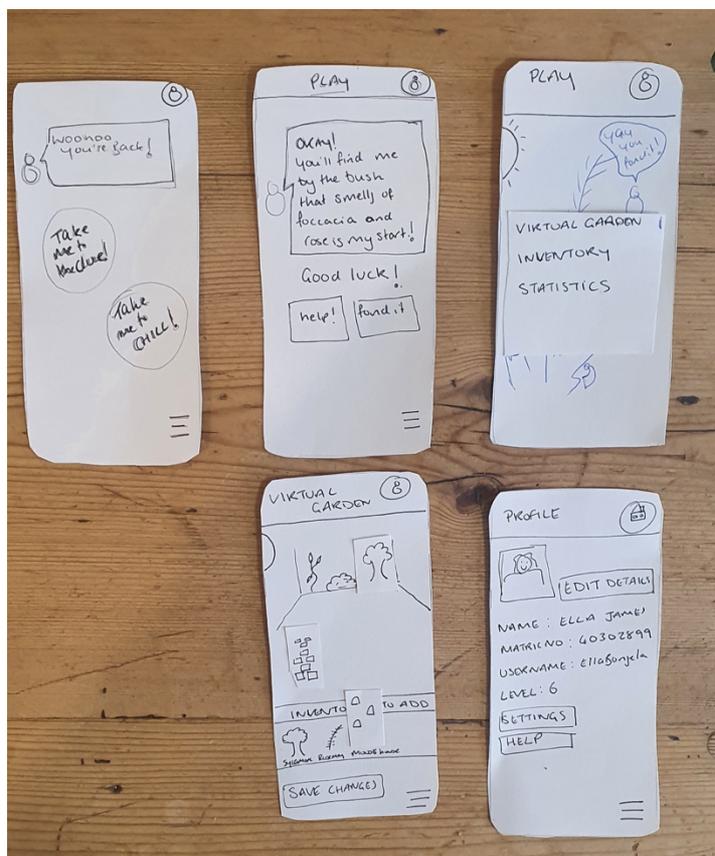


Figure 16 Interactive paper prototype of home page and game play

#### Task 1 (using prototypes in fig. 17)

Participants were asked to go to the virtual garden, add an item from the inventory to the garden, view the profile and then return to the homepage.

Results:

- Expected a back button
- Hesitation to choose correct path to get to the garden via the menu tab.
- Expect to tap anywhere to escape the menu pop up
- Expect to tap to add item to inventory
- Expect to drag and drop to move item from inventory to virtual garden
- Confusion about the top left button within the game.



Figure 17 Paper Prototype of activities, calendar and dashboard interface

### Task 2 (using prototype in fig. 18)

Participants were asked to find their studying statistics, edit the view to a week and then choose a 10 minute audio story. Journal was renamed diary after the Tree Test.

### Results:

- Expected to scroll down and then swipe left through dashboard items to find weekly view not a tap.
- Again, noted the need for a return button on the bottom or top of the screen.
- Would assume that play from last would be a default setting on the audio.
- Expect to search through audio options such as story, news, comedy instead of selecting time length.

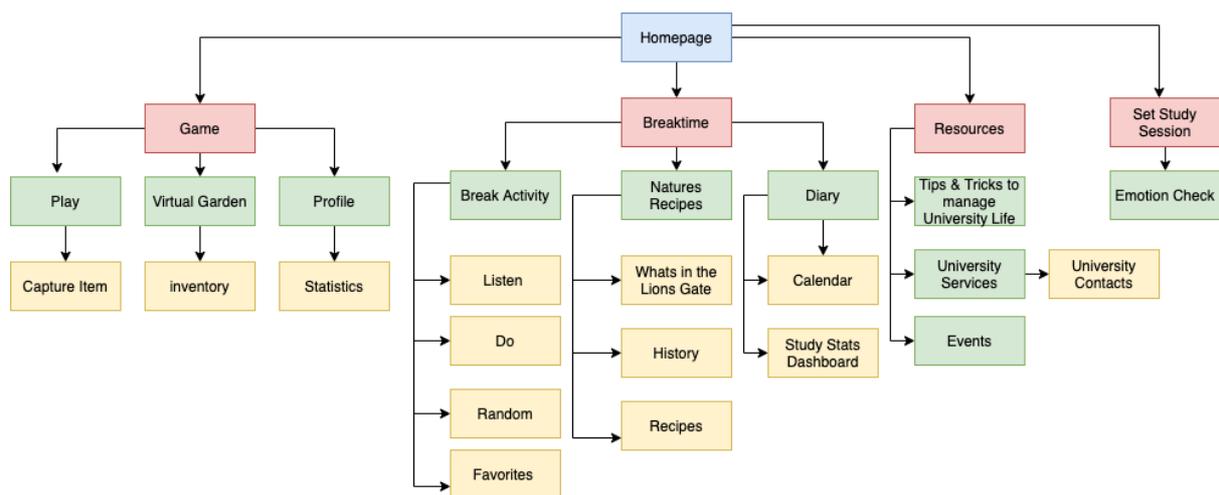


Figure 18 Second iteration of the Navigation Map with revised headings after Test 1 and 2

### 5.2.3 Review

The walkthrough provided useful feedback about expected gestures when interacting with the interface which differed from initial assumptions.

The SUS questionnaire was useful in providing quantifiable feedback:

The three individual scores were 85, 82.5 and 62.5 which puts the average score at 76.6.

Brooke suggests a system with a score of 68 is average, which is puts 76.6 as a very positive result for usability. It would be beneficial to run this test again with hi-fidelity prototypes and with a larger pool of anonymous participants to get a wider, and more unbiased set of results.

## 6.0 Evaluation

### 6.1 Expert-based method: Informal Feedback

Using the feedback and results from the testing above, I developed hi-fidelity prototypes to show experts in the field (four fellow UX students) for informal evaluation. I provided them with context, a scenario for the interfaces and discount heuristics triad (Benyon, D. 2019 ,pp. 247) and asked them to provide feedback via a phone call, voice notes or instant messages.

The app tracks the amount of time a student spends studying and alerts you when its time to take a break.

The app uses Augmented Reality to create a treasure hunt type game in the garden – when a new challenge is ready the student will get a notification of a new clue.

For the app to time the alerts students must tell it that they are beginning a study session on the app

The app also provides alternative breaktime activities if students are not on campus or do not feel like playing the game

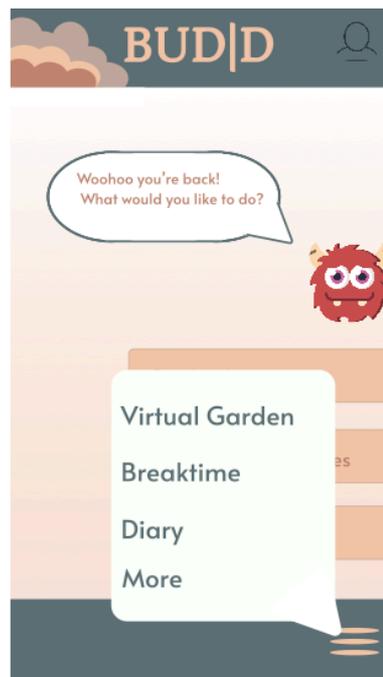
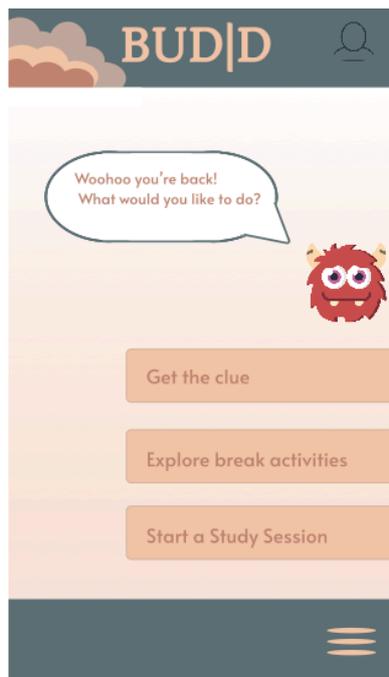


Figure 19 Screenshot from presentation of hi fidelity prototypes sent to experts – they were also able to access the prototypes on Figma

Setting a study session:

For the app to time the alerts students must tell it that they are beginning a study session on the app

Here, a user has selected an emoticon to start the study session

The app tracks your moods and makes suggestions based on your input. If you have input a negative mood multiple times in a certain time period it will recommend resources to provide advice.

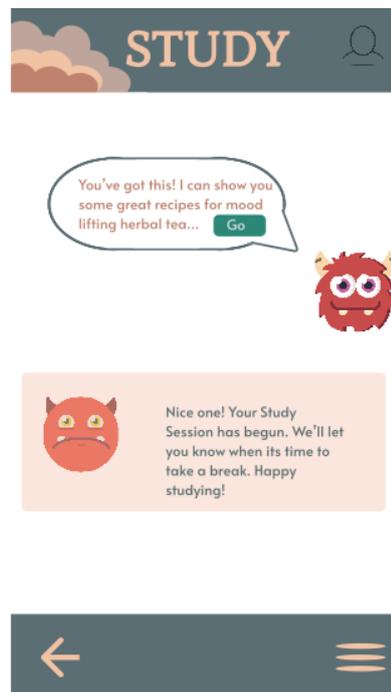


Figure 20 Screenshot of Prototype presentation - Setting a study session

### Augmented Reality Game

Here a users can view the clue then put their device away whilst they explore the garden to solve the clue.

Once they find a hidden object they select 'found it' to open the device camera and scan the item.

This shows the AR item which can be collected and added to the players' inventory.

A fact about the plant in the clue is also shown to encourage learning about the natural environment.

Players can view their inventory and create their own virtual garden using AR.

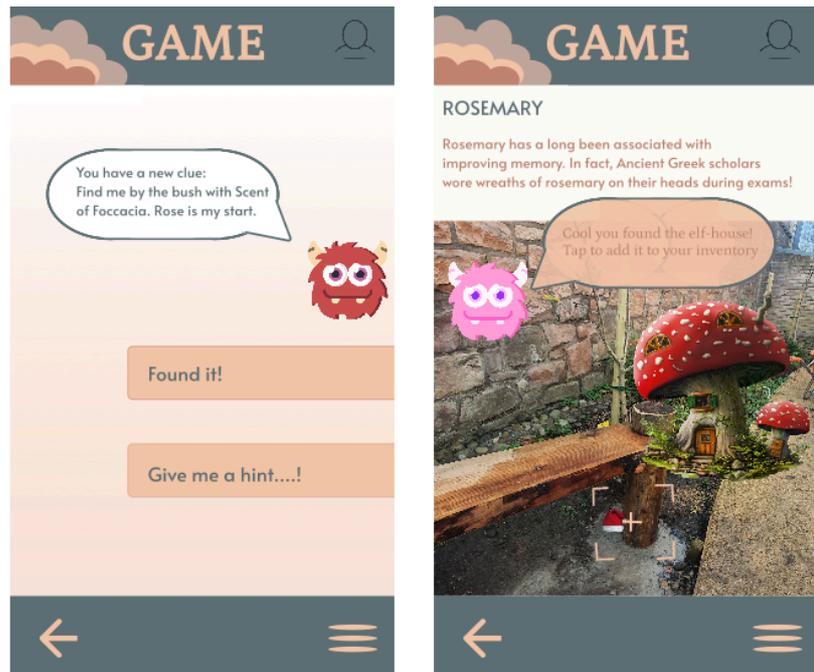


Figure 21 Screenshot of Prototype presentation showing the AR game and capturing an item

#### 6.1.1 Results

- Consistent, simple design that is easy to navigate.
- Standardised navigation elements make it easy to control, go back and know where you are.
- Labels are descriptive but not too long.
- Some of the text contrast may not be enough for users with visual impairments or if the screen brightness was dim.
- Icons and labels consistent with users' mental models and existing models.

#### 6.1.2 Review

This was a useful exercise as it pointed out the issue of colour contrast but it could have been improved by involving multiple experts who have worked in the field of UX and asking them to complete a heuristic evaluation.

## 6.2 Participant Based Evaluation: Cooperative Evaluation

Using the guidelines stated by Benyon (2019, pp.251) I conducted another session similar to the SUS test, except this time I used the hi-fi prototypes and expanded the tasks to explore the overall system. This evaluation method involved three users who were somewhat familiar with the system.

### 6.2.1 Results

Table 1 Table showing scenarios and timed results of Cooperative Evaluation

Table Showing the Results of the Cooperative Evaluation test		
Task	Est. Time	Avg Actual Time
<p><b>Start</b></p> <p>You have just sat down at the library to study. You need to tell BUDID so it can remind you to take a break, log in and start a session</p>	20 seconds	22 seconds
<p><b>Breaktime</b></p> <p>BUDID notification to take a break. You go to the Lion's Gate to read the clue and capture the item. Then you put it in your BUDID garden. You still have 10 minutes left of your break so you decide to listen to a good news story on the app.</p>	12 seconds to get to the clue. 29 seconds from finding the object to playing audio.	9 seconds to get to the clue. 38 seconds from finding the object to playing audio.
<p><b>Get Help</b></p> <p>You're at home and concerned about your flatmate, she is struggling to keep up with her work and has been down for a while. You aren't sure what to do and need some advice, you check what services the university offers and then see if there is anything you could do to cheer her up in the meantime.</p>	26 seconds to get to each item (no time taken to read resources - moved on to next task immediately)	36 seconds (more time taken to read through resource titles )

### 6.2.2 Review

The results were positive with no major issues or mistakes made by participants. It is important to bear in mind that all the participants are familiar with using smart-phone apps so they found it easy to pick up. One participant is red green colour blind and had no issues with the interface. After the test they provided some general feedback:

*'It's definitely something I would use, it's fun and would motivate me to explore the garden' – Ines.*

*'I like the tip that comes up when you select your mood! It makes sense and I enjoyed doing this. It's great, I wish it worked completely I want to play with it more' – Nick*

*'I like how friendly it is, I would love to have something like this' – Georgie*

## Conclusion

The methods chosen enabled me to gather input from real, prospective users at every stage of the process. Starting from user interviews, to the quick sketching and prototyping techniques which made it easy to iterate based off user feedback, to the intensive participation of users in the testing and envisionment stages. Some methods chosen were similar to that of scenario-based design, and user stories, concrete scenarios and personas were still used to support parts of the process. Using both together ensures that user's needs and PACT analysis is kept at the forefront of the design process throughout.

Reflecting on the process, access to more participants in person, and less participant with a close relationship with myself would have allowed for a more trustworthy, unbiased pool of results. Testing with fully interactive prototypes would have allowed this. Access to testing with students with disabilities would have provided clearer assessment on the accessibility of the design. Ethically speaking, all participants were happy to be involved in the process. In terms of the design idea, there would be some issues with the number of people accessing the Lion's Gate and the security of personal data, especially the data the mood & study tracking and accessing of resources.

## References

Benyon, D. and Carroll, J. (2011) 'Spaces of Interaction, Places for Experience' Morgan & Claypool

Benyon, D. (2019) 'Designing User Experience: A Guide to HCI, UX and Interaction Design' 4<sup>th</sup>, Pearson

F. Guimarães, M. Figueiredo and J. Rodrigues (2015) "Augmented Reality and Storytelling in heritage application in public gardens: Caloust Gulbenkian Foundation Garden" *Digital Heritage*, Granada, 2015, pp. 317-320

## Bibliography

Holmgren, D. (2020) 'The Essence of Permaculture', 3<sup>rd</sup>, Melliadore

Spencer, D (unknown publication date) 'How to Test an Information Architecture', <https://uxmastery.com/testing-information-architecture/>

Maze Design team, 'The Ultimate Guide to UX Research' <https://maze.design/guides/ux-research/tree-testing#kiblzl9mu->

Veugan, P. (2020) 'How to Conduct a Cognitive Walkthrough' <https://www.interaction-design.org/literature/article/how-to-conduct-a-cognitive-walkthrough>

<https://www.nngroup.com/videos/virtual-reality-and-user-experience/>

<https://www.gamedesigning.org/gaming/augmented-reality/>

## Appendices

### Appendix A – Interview Notes

Profiles of participants:

Participant 1: Full time office worker, 31

P2: Full Time Student, 34

P3: Recent Graduate, 23

P4: MA student, 26

P5: Full time student and office worker, 31

Questions and some extracts from the 1:1 interviews:

Study Practices:

- What are your study break practices? i.e regularly, not at all, forget to take them etc.
- How do you cope with work/study stress?
- Do you use any digital resources during these activities? If so, what and why do you like using them?
- Is there anything that would help you to take regular (and effective) breaks?
- Do you play any sort of games, please state specific games (video, board, phone, other)
- What is your favourite app and why?

Relationship with the Outdoors:

- Do you like spending down time outdoors?
- 7a. If yes: is there anything you think would deepen your interaction with wildlife/plants/etc.
- 7b. If no: why?
- Do you have any favourite public outdoor spaces to go (e.g a formal garden, a quiet spot on a beach or a nature park)? Would anything improve these spaces for you?

Mental Health and Access to Services:

- Do you know where to go within your organisation if you needed further help with any mental health issues?
- Would you use these resources in your organisation if you needed?
- Any general comments/thoughts on these services and availability of?
- Is there anything else you would like to add (any thoughts at all, all thoughts are useful especially the seemingly random ones!)

Extracts of Answers:

*I don't have a great understanding of mental health. There's lots of people telling people how they should feel but it doesn't seem like there is information of how to deal with whatever the issues are until it's too late.*

*I play Risk and Civilisation on my phone, mainly because they are always there on your phone, but I deleted all my games because they were taking up too much time and distracting me from work!*

*I don't know what I want to do so it would be cool if an app said 'go pick up a pastry from x and then walk around the botanic gardens'.*

*I've never structured breaks, I find it difficult to start so I procrastinate on my phone a lot and when I start I'm in the zone so I work for as long as I can. The only break would be to get up and grab lunch from across the road. Or getting up to make a cup of tea.*

*Something to remind me to take breaks might be good because I forget to take them especially to break from looking at a screen. I know I should so a pop up to tell me would be quite good.*

*Talking about going outside and being in a separate space. It would be cool to have interaction that doesn't involve screens – with physical things that move or something*

*[about breaks] I generally forget to take them if I'm honest, usually stop for food. That's it.*

*I guess for me, because I am studying and working, is I'm focussed with my eyes so if I work too long I get headaches. Going outside for walks and being outside is a big way to get a break.*

*If anything I find that I get distracted quite easily, I need something to help me set times to be focussed for – do an hour and then you can stop and take a break then come back..*

*Fresh air is the key at the minute but walking on my own is a bit of a chore so I tend to try and organise to meet a friend because that motivates me to get up.*

*I think in general there's still stigma around mental health and getting help, organisations need to make sure that everyone knows what is available and how to use them .*

*I don't really take study breaks, I generally keep doing stuff the entire time. I'm always on social media although I do play PlayStation either before I start on uni work in the morning or at night to shoot zombies/relax.*

*I do a lot of scrolling on Instagram*

## Appendix B – Research Analysis

### Research Analysis:

This document attempts to collate the user interviews and short survey undertaken for research purposes for the project. Five users were interviewed using the same question structure which covered their practices and thoughts on taking study or work breaks; their relationship with the outdoors and nature; and a dive into their knowledge of mental health resources and their thoughts on using them. This largely lined up with the survey which attracted 13 computing students and gained some quantitative data on the same subjects.

Overall it appears that whilst there is a general awareness of how important mental health is in general, most people may not consider their personal concerns in need of support and if they did they wouldn't immediately know where to find it. Half of survey respondents said they wouldn't know where to access support if they needed it. 50% of students would turn to online advice and 70% would go to a programme tutor whilst only 14% would go to a GP and 28% a mental health advisor at the university. Overwhelmingly 92% of students were unsure about the level of pastoral care at the university which in line with the above statistic would suggest that the information may not be as easily accessible as it should be. This would suggest that making access and knowledge of these resources more obvious would be useful. In a similar vein, the interviewees were all aware of the importance of taking regular breaks both to take time away from screens and mentally.

All interviewees struggled with regulating and sticking to breaks and there was a general consensus that being told or reminded to take a break would be positively received. Such a reminder would need to be more than an alarm and bring with it a chosen activity or suggestion to prompt action as an alarm is potentially easier to ignore. The data from the interviewees lined up with survey responses, 71% said they took breaks for an average length of 20-30 minutes and 78% said they took between 3-5 breaks per day. However, there may be some social bias in these results as in reality taking 4 breaks of 30 mins would be a total of 2 hours per day and it is clear from interviews and other research that most people forget or do not have time to take long regular breaks. This figure purposely asked respondents to exclude meal breaks in their answers as these by nature tend to take up more time and it was important to discover practices around non-essential breaks. This is also based on at home and online study or work, subjects noted that pre-covid they would take more frequent shorter breaks to chat to colleagues in offices or libraries.

When it came to relationships with the outdoors and activities undertaken during time off and breaks there were three main themes; outdoor exercise (walking or running were most common), socialising (whether online or in person) and making food. 45% of survey respondents would play a game during a break and none would meditate. For the purpose of this project we can ignore the food making element but it is interesting to note that this would correlate with interviews suggesting that breaks are commonly taken for the necessity of fuelling the physical body.

Social media and Instagram specifically, reared its head in almost every single participant survey or interview. In interviews it was always spoken of with a tone of guilt or negative emotion showing the knowledge of the social media whole and Instagram, scrolling of being a bad and addictive habit that negatively impacts on productivity and mental health.

Only at lunch and to make tea/coffee - suggest very short breaks of 5-10 mins and one longer break for half an hour. Vs study said 30 mins on average and 5 breaks a day. Should find out how long they study for that would be useful.

## Appendix C – Persona and Concrete Scenario

### Personas



Name: Ella

Occupation: Accounting Student

Age: 23

Enjoys: Using guided running apps, Headspace and getting coffee with friends

Does not enjoy: the 'Instagram Hole' and staying inside all day.

Bio:

Ella mostly studies at home but she likes to go to the library at least once a week to get a change of scene and see friends. She tends to get anxious in the run up to deadlines and even though she tries to plan in advance she is a chronic last-minuter. She can be hard on herself and will force herself to work without a break all day if she doesn't feel she has been productive enough.



Name: Michael

Occupation: Graphic Design Student

Age: 26

Enjoys: PC games, tracking his daily exercise, listening to music and walking in the hills.

Does not enjoy: everyone's obsession with mental health, complicated apps and software.

Bio:

Michael often ignores the notification on his Fit Bit to get up and walk around as he needs more motivation than a predictable vibrating watch. If he takes a break he feels he should be doing something productive but he never knows what to do other than scroll through social media mindlessly. He enjoys challenging quest type computer games and appreciates slick interface graphics.



Name: Anna

Occupation: Course Administrator

Age: 38

Likes: Being outside and information boards.

Dislikes: Getting distracted by too many messaging apps, spending time trying to locate a resource.

Bio:

Anna enjoys using public spaces and would like to access more detailed information about things she sees around her. She gets annoyed at herself for getting stuck in a scrolling cycle but is reliant on using her mobile for socialising, Audible and a brain training app. She would like to access advice and resource easily from her mobile without having to commit to a face to face conversation.

## Concrete Scenario

### From Alert to Virtual Garden

- Ella is in the library. She has told her device that she is studying and that she would like to be reminded to take a 20 minute break.
- She has her headphones so she hears the notification and sees the pop up on her phone screen telling her its break time and that there is a new clue waiting for her in the garden.
- She walks to the garden and opens the app to see the usual emoji loading screen, she quickly selects the emoji she relates to the most and the familiar character animation speaking to her and a written clue appear.
- She reads the clue and proceeds to wander around the garden looking for the hidden item.
- When she thinks she has found the item she opens the app in her phone and selects the 'Found It' button which opens up the camera on her device. She then points the camera in the direction of the item which prompts the augmented reality animations with characters, the animated item and a celebration for finding it to appear on the the device screen.
- She can then tap the item to collect it and read a short fact about the plant or real life feature it is hidden by.
- She then taps on her Virtual Garden where she can view all of her collected items. She walks to the corner space in the real garden and selects go to the garden which opens up the camera and overlays her collected items as if they were in the garden. She can then edit and move these items as she wishes.
- She thinks the new item is cool and takes a screenshot to share with her friends to show them what she found.

#### Notes:

1] Does the user set the frequency of breaks or is the optimum break time already worked out?

2] Sound would only be heard if sound was enabled on the whole device

3] The emoji screen should be emotive characters that are in keeping with the games character set and the selection of it should be a quick fun thing to do whilst the game loads.

4] The user can only view their virtual garden if pointing the camera at that specific space – would this cause footfall issues? They can access their inventory anywhere

5] Would there be options to share to social media or is the aim to not encourage social media use?