

Mood Tracking Research Proposal

CAB210 User Experience Fundamentals

Assessment 2 - User Experience Research

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1.0 Introduction

This report collates the results of the do, say, and make methods of a research project undertaken to explore the use of mood tracking applications to aid in maintaining a healthy sleep schedule for university students.

1.1 Aim

Our research aims to investigate the influence of disrupted or inconsistent sleep patterns on the emotional well-being of university students, whilst also exploring the potential for technologies to assist in enhancing awareness and aiding in the effective management of both sleep schedules and moods.

To accomplish this goal a variety of research methods were employed which utilised the say, do, make methodology. This involved two interviews, an initial and a follow-up, for the say method, a card sorting activity for the make method and an online diary for the do method. The exact details of these research tools are further detailed in the *Methods* section of this report.

According to an interview study (Schueller SM, 2021), current mood tracking apps are flawed and generally unaccommodating to genuine emotional improvement and consistent, accurate mood tracking. The applications investigated in the report had a lack of user support in analysing data and suggesting potential causes, correlations, and improvements. Further, it was found that mood tracking was often obtrusive and inaccurate. This paper therefore suggests that we address individuals' ideal data collection methods and analysis options to find the most effective combination of features.

1.2 Scope

To ensure that the scope of our research remained relevant to the intended aim, potential participants were screened via the following criteria:

- A current full time university student aged between 18-25. This age group is particularly relevant due to their diverse social activities, potential sleep disruptions, varied university studies, and potential other work commitments.
- Ideally, individuals would have an additional commitment, such as a particularly active social life or work.
- Individuals excluded from our selected cohort would be those who report a relatively stress-free university experience that leaves them with enough time to adequately manage sleep their schedules, and those that have an extraneous force impacting their ability to maintain a consistent sleep schedule (night-shift work, medical conditions, etc).

1.3 Key Terms

To ensure that the information in this report is conveyed clearly it is important to clearly define the key terms utilized throughout the research, the most important of which are:

- Significant Commitments:
 - Significant - *“of a noticeably or measurably large amount”* (Merriam-Webster, n.d.)
 - Significant Commitments can be defined as a non-academic activity that takes up a noticeable or measurably large amount of a participant's time and/or energy on a regular basis.
- Prior Experience
 - Prior - *“earlier in time or order”* (Merriam-Webster, n.d.)
 - Prior experience can be defined as experience in the topic in question that took place before the beginning of the research project.
- Organizational Context
 - Organizational - *“of or relating to an organization”* (Merriam-Webster, n.d.)
 - Organizational context refers to the unique and specific environment, circumstances, and conditions in which an organization operates. In the context of this research project, it also relates to how this context may potentially interact with the proposed methods of mood tracking.

2.0 Methods

2.1 Participants

Three participants in total were recruited for this project, one from each team member, all of whom were pre-existing personal acquaintances. Screening for project viability was done both in person and via message, with the recruitment email sent afterwards as a formality.

All recruited participants fell within the acceptable criteria specified in the project scope, being within the age range of 18-25, having significant extracurricular commitments, and a lack of extraneous forces that would negatively skew their representation in the data. Not all participants recruited attend QUT, with some studying at other universities, and concurrently the location demographic for all participants was not constant, with one participant living away from the Brisbane area. The exact nature of the extracurricular commitments also varied, but they were all individually determined to be significant enough to warrant their participation in this research project.

For the sake of maintaining the individual privacy of the participants, when mentioned throughout this report they will be referred to as Participant 1 (Adele Finney's Participant), Participant 2 (Ben Bashford's Participant, and Participant 3 (Brayden McConnell's Participant).

2.2 Say Method – Interview

The say method consisted of two separate interviews. First, a longer initial interview that focused on the subject's background and asked a series of preliminary questions to gauge the participants' history and interest in mood tracking and included the make method activity at the end. The question topics centred around the interviewee's background, their prior experience with mood tracking, the perceived impact of their irregular sleep schedules, and their views on mood tracking in an organizational context, for the full list of questions for both interviews see Appendix 7.2.1. The purpose of this interview was to assist in creating a profile for that participant, which would then provide context to the results gathered from the do method activity, and the follow up interview.

This secondary interview revised several questions from the initial interview, in addition to questions regarding their progress with the do method activity, to gauge a change in the participants views and mood as a result of participation in the study. This allowed us to acquire qualitative data from the participants' point of view about the potential effectiveness of individual mood tracking.

2.3 Make Method – Card Sorting

At the tail end of the initial interview, the participants were provided with a variety of cards as part of a sorting activity that they completed online via Miro, an online visual workspace tool, with the interviewer guiding them through the process and answering any questions they might've had.

The participants were first provided with a series of potential features that could be applicable to a mood tracking phone application and asked to rank them based on personal preference from left to right, with left being the most desirable and right being the least. They were then provided with several alternate UI layouts for each of these features and asked to rank which interfaces they preferred the most from top to bottom, with top being the most desirable and bottom being the least. Then, they were provided with a variety of alternate colour palette for the application, and a variety of options for which colours best represent which emotional states, and once again asked to rank their preference in a similar fashion to the previous tasks. Due to a technical issue experienced when interviewing Participant 3, they were asked to numerically rank their preferred features and could not participate in the colour palette activity.

Once this was completed, they were taken through all their choices and asked to provide justification for their responses, including information such as why a certain feature was their most/least preferred, why they chose a particular UI design over any other, and why their chosen colour palette appealed to them the most.

Card sorting was selected as the do method for this project because it required minimal time and energy investment from the participants, who by intent are full time students with significant commitments, who may not have had the time or interest to invest in more complicated make method tools such as mind maps and collages. To see the card sorting activity, please refer to Appendix 7.2.2.

2.4 Do Method – Diary

Once the initial interview was completed, participants were asked to fill out a daily mood tracking diary via Microsoft Forms, which was chosen to protect participant's privacy, over the course of 5 days, at the end of which the follow up interview would take place. This diary consisted of questions regarding their mood, sleep schedule, activities, and technology use. To see the diary and the questions it contained, please refer to Appendix 7.2.3, and to see the anonymised data collected, refer to Appendix 7.3.

This method is our primary way of engaging the participant in the research process over the duration of their involvement in the project, and through it we hoped to provide them with a modicum of experience in mood tracking, even in a limited context, so that we could measure their response in the follow up interview and note any significant change in response that could be attributed to this project. It also is minimally invasive into the participants daily schedule, taking only a few minutes to complete each day, which is useful in ensuring that they don't feel overly pressured by needing to complete it daily and increases the likelihood that they will consistently engage with it over the 5 days.

2.5 Limitations

Due to the limited scope and nature of the objectives of this research investigation, there are inherent limitations that might potentially hinder the relevance of this research, and as a result need to be considered if examining the purported findings for evidence of bias or unsubstantiated results.

Firstly, as only three participants were queried, the pool of subjective data and responses to draw from is incredibly low for a research subject of this scale, and it is near certain that the data recovered from this sample will not accurately reflect the moods and opinions of the population as a whole, and will be heavily biased towards the specific opinions and responses of the individuals interviewed, as tends to be the problem with low sample sizes in data.

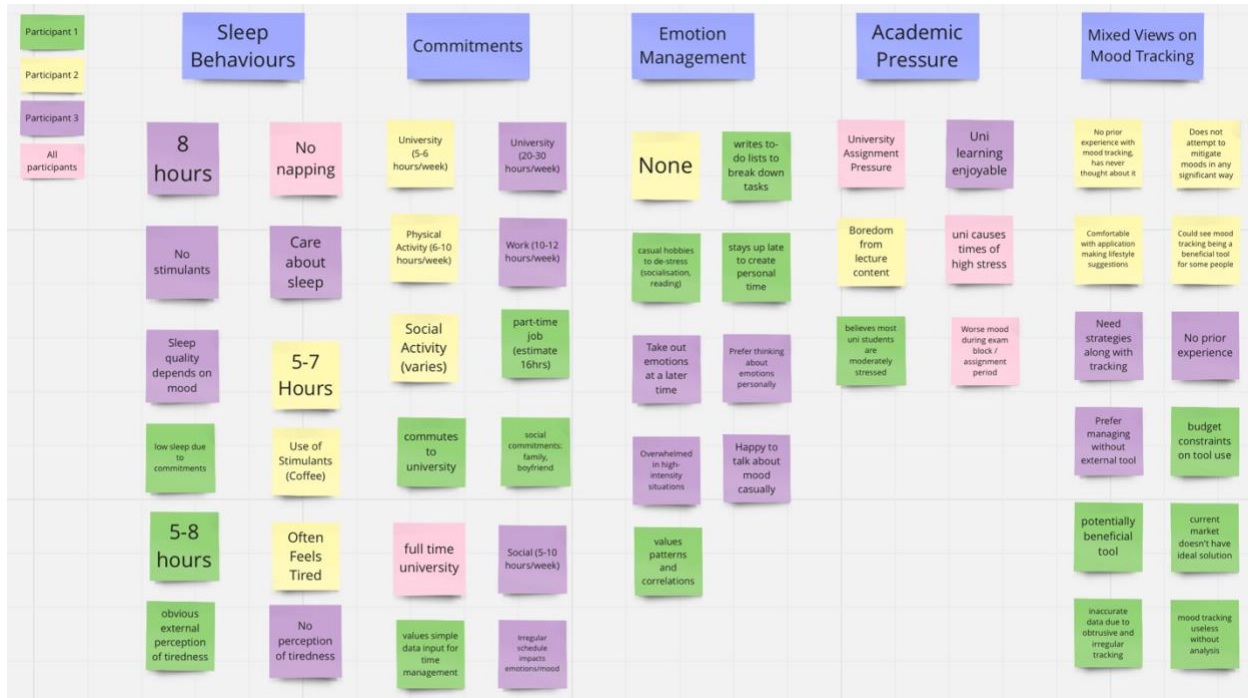
Additionally, as the scope of this project defined the ideal participant as heavily time constrained, the methods utilized to gather information for the participants had to be intentionally designed with brevity in mind as to not impose on the subject's time too heavily. Whilst a good pool of data was still gathered, this limitation did prevent us from exploring this topic with more in-depth tools and methods, potentially limiting the breadth and depth of data collected from each participant.

Finally, due to the limited timespan of each participants interaction with mood tracking tools, its relatively unlikely that they would've had enough time to notice a measurable effect on their mood and sleep schedule as a result of utilizing the daily mood tracking diary within the duration of the project. This is relatively unavoidable due to the need for a fast turnaround from the interviewee participation phase to the collation and analysis of data phase, however if this research proposal were to be undertaken on a larger scale it would be beneficial to have participants interact with mood tracking tools for significantly longer than the 5-day period utilized in this project.

3.0 Thematic Analysis/Findings

To get an accurate analysis of participant data, coding was performed and subsequently used to create an affinity diagram. It was discovered that participant responses were diverse and had little commonality, so the research team has decided to include key themes that apply to all participants as well as individually-expressed themes for the analysis.

3.1 Key Themes Diagram



3.2 Sleep Behaviours

As the aim of the research is to investigate the influence of sleep patterns on the wellbeing of university students, it is important to categorise the sleep behaviours of the participants. This includes their average sleep duration, perception of tiredness, and stimulant use, to better identify patterns linking mood and sleep. As recorded in the diary entries, the average sleep period for the participants was 6.9 hours each night, slightly below the recommended 7 hours per night according to research performed by the American Academy of Sleep Medicine and Sleep Research Society (Consensus Conference Panel, 2015). Participant 1 indicated that they regularly experience periods of low sleep due to life commitments, with general range of 5-8 hours with a self-identified external perception of tiredness. In the interview, the participant mentioned their estimated sleep hours, commenting that they:

“Probably get more sleep on the weekends, so probably like 8 hours on the weekends...”

This contrasts with the level of sleep they estimate at other times:

“During the week, maybe more like 5 [hours].”

The participant also regularly gets comments on externally perceived tiredness:

“...when I was at uni. I'm just waiting for my class and, one of my classmates came up to me and said like you look so tired, I was like, wow, thanks.”

Participant 2 indicated a range of 5-7 hours each night for sleep and mentioned that they utilised stimulants such as coffee to maintain their energy throughout the day whilst also often feeling tired. In contrast to the other participants, Participant 3 indicated that they try to aim for 8 hours of sleep each night and prefer to focus on sleep rather than skipping it in favour of working on other commitments:

“Personally, I haven't [skipped] because I'm big on sleep...”

In the card sorting activity, the ‘sleep entry’ card was, on average, ranked in the upper third quartile, approximately at the 74th percentile. This suggests that participants expressed a relatively low interest in tracking sleep to monitor and manage moods. Consequently, it can be inferred that the influence of sleep on mood quality was perceived to be limited by participants. However, it is worth noting that the Mood Diary results revealed a general trend of improved moods occurring on days where higher sleep (>7 hours) is recorded. Further, 11 of 15 respondents reported feeling tired or worn out, with lower mood qualities, on days when they reported lower sleep durations.

Additionally, all participants reported that they typically do not take naps despite their recurring fatigue. Given the context of these participants being full-time university students with substantial extra commitments, it can be inferred that the lack of nap-taking is likely due to a lack of available time during the day to dedicate to rest. A study on the napping behaviours of Australian university students revealed that participants averaged 6-7 hours of sleep nightly, similarly to our participants. However, in contrast, over half of those participants reported taking multiple naps per week to alleviate fatigue (Nicole Lovato, 2014). This suggests that naps may serve as an effective means of combating tiredness for the general university populace but is not a practical solution for individuals with significant extracurricular or work responsibilities.

3.3 Commitments

All participants had significant commitments in their lives, including university, work, social activities and self-care. Generally, the largest time commitment for the participants was university studies.

Participants 1 and 3 indicated that they regularly spend over 20 hours per week on university studies, with work taking up most other time for these participants at 10-12 hours and 16 hours respectively.

Participant 1 states that:

“The assessments and the classes themselves [...] add to my tiredness honestly, also the factor of me having to travel to uni adds my tiredness.”

“Work is making me very stressed lately because I've got a lot of responsibility at work and I'm struggling to fit it in with my new university degree. And I'm thinking that cutting back, so currently I'm quite stressed out with everything I need to do.”

It can be clearly seen that Participant 1's heavy commitments are a key cause of their fatigue and stress. Participant 2 indicated that they did not currently have work commitments or spend significant time on university studies, instead spending most of their time (6-10 hours per week) on physical activity while spending 5-6 hours per week on university studies. Participant 1 explained the impacts of their commitments on the ability to get adequate sleep and personal time, stating:

“The majority of the time it's me trying to fit my busy schedule into it and just ending up late at night, you know, doing leftover uni work after my job. Only occasionally is it me deliberately staying up to read a book. And if it is me staying up deliberately to read a book, it's because I haven't had time during that day because of uni or my job to actually have anytime for myself and so I will sacrifice my sleeps, like my sleep schedule, for that personal time to do what I want to do...”

Further, this indicates a prevalence of revenge bedtime procrastination: a self-regulation method in which individuals sacrifice sleep for leisure time, often driven by a busy schedule lacking in free time (Obalar, 2021). This detrimental habit is likely to result in increased fatigue and worsened long-term moods.

Additionally, the Mood Diary results reveal that for 14 of 15 reports, participants did some sort of university or work-related activity as the key activity of the day. Of the 15 data records, only 5 entries had notable personal time recorded within their daily activities.

The Card Sorting activity shows a preference for fast but accurate data collection, as indicated by a predilection for sliders and simple selections over more complex or word-oriented approaches. Further, participants often chose basic input and analysis over more involved and obtrusive features such as journaling and mindfulness exercises. It can be inferred from this that, as a result of participants' busy daily schedule, individuals value useful but unobtrusive features when using Mood Tracking applications.

3.4 Emotion Management

Each participant approached emotion management differently. When asked to recall quick and drastic changes in mood, along with a subsequent solution, Participant 2 stated:

“Off the top of my head that's pretty hard to answer. I mean when playing games usually that happens but I don't really do much to mitigate it, I just let it happen.”

This contrasts to Participants 1 and 3, who both indicated they have strategies to deal with unforeseen changes in mood and to de-stress. In particular, Participant 1 stated:

“Just reading and hanging out with my family and stuff helps me de-stress a bit like. Yeah, it's time away from my classes where I can stop thinking about what I have to do and it gives me a break from that. So it helps with my stress and mood it makes me feel a bit better.”

Participant 1 also noted that:

"I more so just try and like make lists like a list of things that I could get done that day and then maybe things to do that week because if I break down everything I'm stressed out about, especially if it's for uni or something then it feels more manageable and that's sort of my solution."

This participant also indicated in the follow-up interview that an in-app feature that they can use in a similar manner would be ideal to assist in mood and activity management.

Further, participants elaborated on the circumstances in which they feel stressed, anxious or overwhelmed, indicating that university and work commitments, along with irregular schedules, can cause their moods to be negatively impacted. Additionally, Participant 3 indicated that their mood is drastically worsened in confrontational situations, and to deal with these situations, Participant 3 stated:

“...I guess that the best thing I have to do with that is just if it's a public space obviously remembering you don't want to lash out or anything like that, so you know, just remembering to be aware of other people and things like that and you know, managing your emotions yourself and reminding yourself that you can take out however you need to take out your anger at a later time and you know managing it like that, as opposed to just instantly acting.”

These responses of the participants display a clear indication that the efficacy of mood tracking is likely to vary quite significantly, as participants with a history of emotional management may respond better to different strategies than those with little to no history. Alternatively, it should be noted that users with fewer personal management strategies have the potential for more drastic increases in mood management, despite the hypothetical reluctance that they may show.

3.5 Academic Pressure

All participants indicated that they feel pressure from their university studies, particularly during assessment periods, increasing their stress levels. Participant 3 indicated that they enjoy learning at university, however feels stressed around assessments, stating:

“...I guess the more negative side of things of uni would just be obviously stressed about assignments or anything like that, but generally university is generally a positive experience because I enjoy learning...”

Participants chose language such as “stressed”, “overwhelming” and “annoyed” to describe some of their experiences in university. Substantiating this, a study on academic stress amongst university students suggests that university studies was the key cause of stress amongst 90% of its participants, and extrapolates this to suggest that academic pressure is the likely cause of the sleep disorders reported by 56% of the participants (Malarvili Ramachandiran, 2018). Further, the Mood Diary results showed that 13 of 15 reported days had ‘study’ as a key activity, as well as University classes in 50% of entries, providing more evidence that studies contributed the most to changes in mood to the participants.

3.6 Mixed Views on Mood Tracking

Overall, participant interest on mood tracking was mixed. Participants 2 and 3 had no prior experience with mood tracking, while Participant 1 had previously used an app-based mood tracking tool however stopped using it due to a paywall and high time requirements:

“[...] it just got a bit too much after two weeks [...] and then I just deleted the app. Also it costs money and I didn't want to pay for the full version, but I think the actual like full version would have been a lot better than just the free part of it.”

Participants 1 and 3 stated that they would need to see an analysis of their mood patterns over time in order to make meaningful changes. Participant 3 elaborated further in the card sorting activity around the need for strategies in conjunction with mood tracking:

“...I think while mood like analysing is good, if you don't actually have strategies to be able to, then like use from that, it's kind of pointless. So having an app that actually suggests some sort of mindfulness things in there is also like a good feature to have.”

Participants also had mixed feelings around mood-based health recommendations, with Participant 3 preferring to manage their mood and health without digital aids, stating:

“I prefer to think about that myself than have, like, my phone telling me that like and I would prefer to work with that with other humans as opposed to, like, relying on a device for that with myself.”

Conversely, Participants 1 and 2 were open to mood-based health recommendations. Participant 2 responded:

“I really do like that, especially the personal aspect. It may freak some people out, but I quite like how it can personalize to yourself, like by putting in when you answer questions and then it starts to personalise itself.”


When the participants took part in rudimentary mood tracking through the five-day diary, Participants 2 and 3 both indicated that they did not perceive a clear benefit to tracking their moods and did not notice any patterns in their moods or sleep that were only identified due to the diary. Conversely, whilst Participant 1 indicated that they did not find the Diary beneficial due to its lack of analysis and short timeframe, they still were able to use the diary to identify patterns relating to their study habits, stating:

“Yes, I noticed that I answered pretty much the same on most of the questions in the mood tracking when I was actually in my room. It's just probably because I do all my study— well when I'm at home, when I'm studying, I do it in my room all the time. So there may be some like anxiety related to my study.”

From the responses of each participant, it is clear that digital mood tracking and analysis is perceived as useful for some people. However, others would prefer to use traditional non-digital methods in order to improve wellbeing unless mindfulness and mood management features were present.

4.0 Design Specifications

4.1 Persona



Cassandra Stone

About:
Cassandra is a full-time university student studying a Bachelor of Mathematics. She has a part-time job in fast-food to cover her cost of living. To further save on cost, Cassandra commutes from her house in outer Brisbane to QUT using public transport, including both buses and trains, taking extra time from her day. Cassandra struggles to manage negative moods and believes that irregular sleep could be a contributing factor. She has attempted mood tracking before as she believes it holds the potential to be beneficial, but found the free feature set to lack any insightful analysis and that it was ultimately unhelpful.

Age: 22	University: full-time Bachelor	Occupation: Part-time Hospitality	Location: Brisbane
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Motivations	Frustrations
<p>1. Academic success Cassandra is highly motivated to excel in her University studies.</p>	<p>1. Ineffective mood tracking Cassandra is frustrated with her previous attempts at mood tracking and is discouraged by the lack of meaningful insights or actionable recommendations provided by existing applications.</p>
<p>2. Improved mood She wished to find an effective way to manage and improve her moods. she is motivated to identify correlations between activities and emotions.</p>	<p>2. Financial constraints Cassandra's part-time job and student budget make her limited in the resourced she can invest in mood tracking solutions.</p>
<p>3. Time efficiency Due to her demanding schedules as a student and part-timer, Cassandra values efficiency in her daily routine and would find unobstusive data collection methods ideal.</p>	<p>3. Time constraints Her busy schedule, including university, job, and commute, leave her with limited time to focus on her well-being. she may be frustrated by solutions that require a significant time investment.</p>
<p>"I wish I could manage my moods better, but I struggle to fit it in around my busy schedule, so I just end up letting my moods happen and not looking too closely at why."</p>	<p>4. Uncertain activity patterns Cassandra is frustrated by her irregular sleep patterns and their potential impact on her mood, but is struggling to identify specific patterns.</p>

sleep quality

low high

time availability

low high

time management

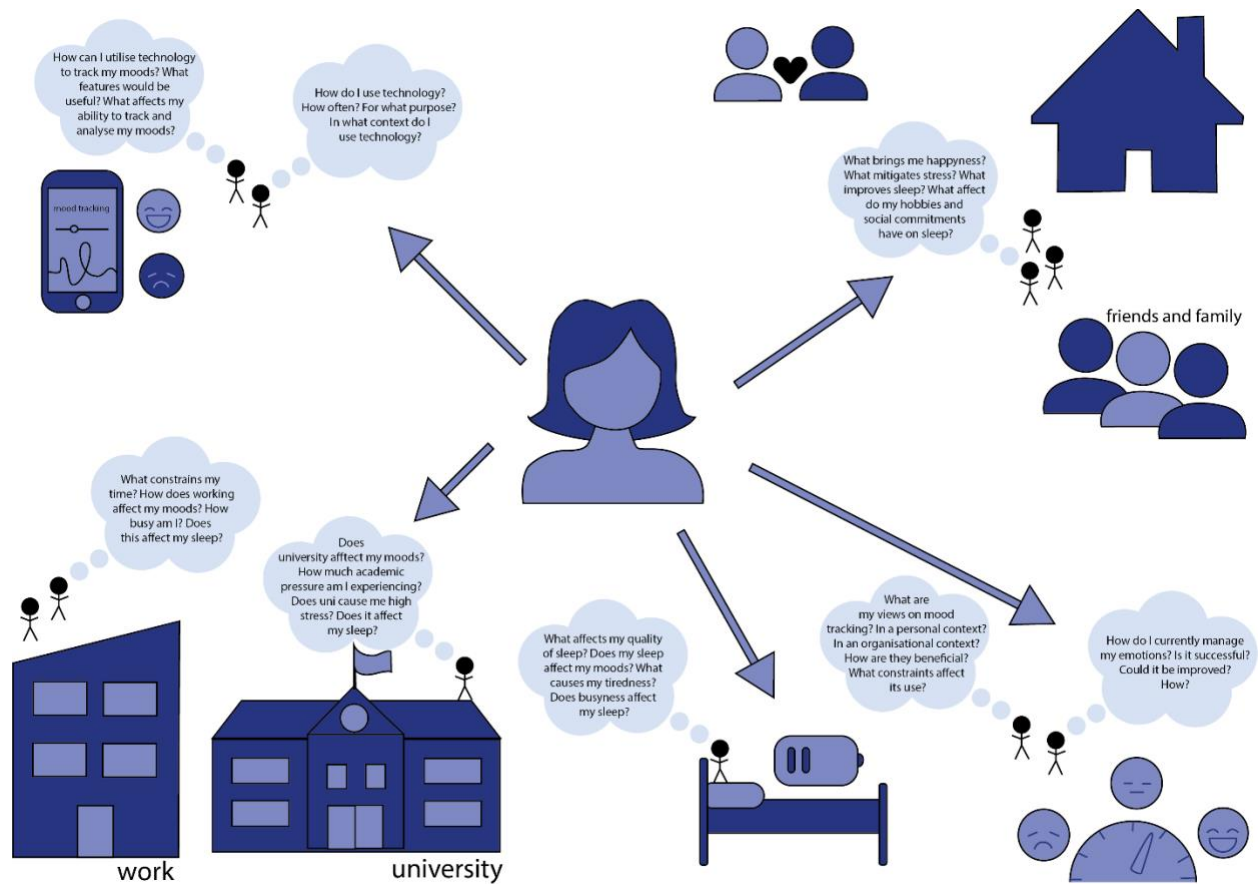
low high

technology usage

low high

Image in persona sourced from: <https://stock.adobe.com/au/images/smiling-brunette-woman/256196954> (Adobe Stock, n.d.)

4.2 Rich Picture



5.0 Design Brief

5.1 Problems

Disrupted Sleep Patterns and Emotional Well-Being:

Full time university students who maintain significant extracurricular commitments often report experiencing disrupted or inconsistent sleep patterns due to their busy day to day schedules. Disrupted sleep becoming regular in someone's life can often lead to increased stress, anxiety, irritability, impaired cognitive function, affected mood regulation, and could hinder academic performance.

Lack of User Support and Analysis in Existing Applications:

Existing mood tracking applications lack user-friendly features for effective mood tracking and management, such as data analysis, suggesting causes and correlations between mood and other factors, and offering useful tools to help improve emotional well-being. Without clear feedback and suggestions for improvement being provided by a mood tracking tool, users may begin to feel frustrated and disengaged from the process, and as such an engaging and supportive experience is essential in encouraging users to stay consistent with the applications use.

Time Constraints

Full time university students with significant extracurricular commitments will have a limited amount of time each day to dedicate towards mood tracking and management, necessitating a solution that is both brief and minimally invasive, whilst still being robust enough to provide benefit to the user.

5.2 Objectives

Improve Mood Tracking and Analysis

Broadly speaking, the primary goal is to create an application that is user-friendly and offers significant advancement in mood tracking tools and analysis over current options. It should allow users to record their moods accurately but succinctly, and provide insightful analysis based on the users' inputted responses, suggesting potential causes and actionable improvements that can be made in a user's daily schedule to enhance emotional well-being.

Enhance Emotional Well-Being

This is the most important overall goal of the application and the primary driver in its development, and it involves helping university students to maintain consistent and healthy sleep patterns by offering them mood tracking tools and insights via a mobile phone application. This should incorporate assisting users in managing their sleep schedules more effectively, which in turn will ultimately contribute to an improved mood and wellbeing.

Minimize Time Demands

By recognising the inherent time constraints of our chosen target audience, we must keep in mind the critical objective of designing a solution that minimizes the time demand on its users, to ensure that it does not become a burden to complete, thus increasing the likelihood that users will easily adapt application use as part of their daily schedule with maximum efficacy. This efficiency should also extend to the analysis and interpretation of the mood data, with users receiving instant feedback and insights without the need for extensive manual input.

5.3 Target Audience

- Aged 18-25
- Full-time University Students
- Engaged in significant extracurricular activities such as work, social commitments, or hobbies. Experiencing disrupted sleeping patterns on a regular basis

5.4 Scope

Key Features of a Minimum Viable Product (MVP):

- User friendly interface for application to ensure ease of use
- Analytical tools to help provide key insights into mood fluctuations, and draw correlations between moods and sleep and activity patterns
- Personalised suggestions for improving emotional well-being based on data analysis
- Efficient mood tracking entry that remains comprehensive enough to provide sufficient data
- Privacy features to protect user data and control who can view your information
- Sleep tracking tool to monitor sleep duration and quality
- Calendar tracking to view your mood and sleep history
- In-app reminders/notifications to remind the user when it's time to log their mood
- Journaling to record daily thoughts, feelings and experiences.
- Generate regular progress reports summarising mood data trends and sleep patterns.
- Tools and exercises to assist with mood management and wellbeing.

Out of Scope Features (Recommended):

- Integration with wearables or other health monitoring devices
- Social features for peer support and motivation
- Integration with university resources and counselling services
- Exportable data in a format suitable to share with healthcare professionals or councillors.
- Gamification elements, such as achievements and rewards, to help incentivize consistent use of the app
- Offer tips and recommendations for improving sleep hygiene on the app loading screen

Design Considerations:

- Overall visual layout should utilise calming colours (blue, green, white, etc) to create a soothing user interface, avoid harsh or contrasting colours
- UI Design should be clean and minimalistic, provide as much information with as little visual clutter as possible
- Provide clear instructions and tool-tip popups for new users to guide them through the applications functionality
- Prioritize useability and accessibility for users with busy schedules; never implement a feature in a form that would take a user more than a few minutes to interact with
- User feedback should be utilised to refine the application over iterative and incremental releases; the best individuals to tell you how this form of application should function are its daily users.

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7.0 Appendices:

7.1 Appendix A: Ethics Documents

Interview consent form:

 CONSENT FORM FOR QUT RESEARCH PROJECT Interview, Diary, Card Sorting	
CAB210 User Experience Fundamentals QUT Ethics Approval Number 190000684	
Research team contacts	
Students:	Benjamin Bashford-Ferrier benjamin.bashfordferrier@connect.qut.edu.au Adele Finney adele.finney@connect.qut.edu.au Brayden McConnell brayden.mcconnell@connect.qut.edu.au Unit Coordinator: Dr Bernd Ploderer b.ploderer@qut.edu.au 07 3138 4927 Faculty of Science, Queensland University of Technology (QUT)
Statement of consent	
By signing below, you are indicating that you:	
<ul style="list-style-type: none">• Have read and understood the information document regarding this research project.• Have had any questions answered to your satisfaction.• Understand that if you have any additional questions you can contact the research team.• Understand that you are free to withdraw without comment or penalty.• Understand that if you have concerns about the ethical conduct of the research project you can contact the Research Ethics Advisory Team on 07 3138 5123 or email humanethics@qut.edu.au.• Understand that non-identifiable data from this project may be used as teaching material and as comparative data in future research projects.• Agree to participate in the research project.	
Please tick the relevant box below:	
<input type="checkbox"/> I agree for the study to be audio / video recorded.	
<input type="checkbox"/> I do not agree for the study to be audio / video recorded.	
Name _____	
Signature _____	
Date _____	
Please return this signed consent form to the researcher.	

Interview Information:

 PARTICIPANT INFORMATION FOR QUT RESEARCH PROJECT – Interview, Diary, Card Sorting	
CAB210 User Experience Fundamentals QUT Ethics Approval Number 1900000684	
Research team	
Students:	Benjamin Bashford-Ferrier benjamin.bashfordferrier@connect.qut.edu.au Adele Finney adele.finney@connect.qut.edu.au Brayden McConnell brayden.mcconnell@connect.qut.edu.au Unit Coordinator: Dr Bernd Ploderer b.ploderer@qut.edu.au 07 3138 4927
Faculty of Science, Queensland University of Technology (QUT)	
Why is the study being conducted? This research project is being undertaken as part of an undergraduate project for Benjamin, Adele and Brayden for unit CAB210 User Experience Fundamentals.	
The purpose of this research project is to better understand the experience of University Students with digital technologies to promote mood tracking, and to evaluate and improve related websites or apps. Mood tracking is a technique for improving mental health where a person records their mood, usually at set time intervals, to help identify patterns in how their mood varies. We are particularly interested in how digital technologies might be used for mood-tracking in an organisational context, e.g., by sharing moods with colleagues and supervisors to provide mutual support.	
The research team requests your assistance because you are a current university student.	
What does participation involve? Your participation will involve the following activities:	
Two audio recorded interviews at a comfortable location of your choice that will take approximately 30 minutes of your time each. Questions will include: Your Background, History with Mood Tracking, Perception of Interrupted Sleep Schedule, and Personal Views on Organisational Mood Tracking.	
One interview will include a card sorting activity that will take approximately 10 minutes of your time. You will be asked to rank 8 features in order of perceived impact, as well as ranking UI designs for each respective feature.	
A diary over 5 days that will take approximately 5 minutes of your time each day. The focus of the diary will primarily be to track your daily mood, activities and sleep activity. The diary will be transcribed and discussed during the second interview.	
Your participation in this research project is entirely voluntary. If you do agree to participate you can withdraw from the research project without comment or penalty. You can withdraw anytime during the interview. If you withdraw with 2 weeks after your interview, on request any information already	
further information about the project.	
What if I have a concern or complaint regarding the conduct of the research project? QUT is committed to research integrity and the ethical conduct of research projects. If you wish to discuss the study with someone not directly involved, particularly in relation to matters concerning policies, information or complaints about the conduct of the study or your rights as a participant, you may contact the QUT Research Ethics Advisory Team on 07 3138 5123 or email humanethics@qut.edu.au .	
Thank you for helping with this research project. Please keep this sheet for your information.	

obtained that can be linked to you will be destroyed. Your decision to participate or not participate will in no way impact upon your current or future relationship with QUT (for example your grades).

What are the possible benefits for me if I take part?

It is expected that this research project will not benefit you directly. However, it may benefit CAB210 students to see how the needs and the way people use technology are different from their personal experience, and to learn user experience methods which will enhance their employability. Your feedback will also benefit QUT researchers to study how digital technologies can support wellbeing as well as the QUT Wellbeing Strategy Team and the company Mettlestone to improve their services.

What are the possible risks for me if I take part?

There are no risks beyond normal day-to-day living associated with your participation in this research project.

What about privacy and confidentiality?

All comments and responses are coded i.e. it will be possible to re-identify you. A re-identifying code stored separately to personal information (e.g. name, address), will only be accessible to the research team, and the code plus identifying information will be destroyed at the end of the semester.

Any personal information that could potentially identify you will be removed or changed before files are shared with other researchers or results are made public. The information that will be removed may include names, place of work/study, occupation, and education.

Any data collected as part of this research project will be stored securely as per QUT's Management of research data policy. Data will be stored for a minimum of 5 years, and can be disclosed if it is to protect you or others from harm, if specifically required by law, or if a regulatory or monitoring body such as the ethics committee requests it.

As the research project involves an audio or video recording:

- You will not have the opportunity to verify your comments and responses prior to final inclusion.
- The recording will be destroyed 5 years after the last publication.
- The recording may be used for teaching purposes and to improve the services of QUT Student Services and Wellbeing.
- Only the named researchers will have access to the recording.
- It is not possible to participate in the research project without being recorded.

Every effort will be made to ensure that the data you provide cannot be traced back to you in reports, publications and other forms of presentation. For example, we will only include the relevant part of a quote, we will not use any names, or names will be changed, and/or details such as dates and specific circumstances will be excluded. Nevertheless, while unlikely, it is possible that if you are quoted directly your identity may become known.

How do I give my consent to participate?

We would like to ask you to sign a written consent form (enclosed) to confirm your agreement to participate.

What if I have questions about the research project?

Please contact the researchers (details above) to have any questions answered or if you require

Email Recruitment:

Subject Title:

Participate in a research study about mood-tracking with digital technologies

Dear colleagues,

My name is (x) and I am an undergraduate student in IT at Queensland University of Technology (QUT) and I'm doing a research project into the experience of University students with digital technologies and mood-tracking, and to evaluate and improve related websites or apps.

I would like to invite students to take part in a study that involves two interviews, a short survey, a 5-day diary and a card-sorting activity. Each interview will take approximately 30 minutes, and the 5-day diary has been designed to be completed in under 5 minutes per day.

Please view the attached Information Sheet and Consent Form for further details on the study.

If you are interested in participating or have any questions, please contact me via email.

Please note that this study has been approved by the QUT Human Research Ethics Committee (approval number: 1900000684).

Many thanks for your consideration of this request.

(x)

IT Student

x@connect.qut.edu.au

Dr Bernd Ploderer

Unit Coordinator

07 3138 4927

b.ploderer@qut.edu.au

**School of Computer Science, Faculty of Science
Queensland University of Technology**

7.2 Appendix B: Methods Used

7.2.1 Say Method

[Say Method: Interview Guide](#)

Initial Interview Questions:

TOPIC 1: Interviewee Background

- Could you please give me some background on your university studies?
 - o Are you a full-time student? How many classes do you take?
- Can you tell me a bit about your typical extracurricular commitments beyond academics?
 - o Do you work? - how many hours do you do in a typical week?
 - o Will you tell me a bit more about any of your usual social activities?
- How much of your time per week would you estimate these commitments take up?
- How much of your time per week would you estimate that you spend on university tasks?
- How much sleep do you regularly get each day?
- Have you ever skipped sleep entirely in favour of working on other commitments (university or otherwise)? If so, how often have you done this?
- Do you regularly take stimulants (such as coffee) to maintain your energy throughout your activities?
- Do you often take short naps during the day in replacement of a long period of sleep at night

TOPIC 2: Prior Experiences with Mood Tracking

- Have you had any prior experience with personal mood tracking?
 - Yes:** Could you walk me through the steps of how you tracked your mood?
 - Do you feel like it is/was effective?
 - How did you start tracking your moods? Were there any particular motivations that prompted you?
 - No:** Have you ever thought about tracking your mood, either digitally or physically?
- Can you think of a time that your mood was drastically and quickly changed?
 - o What happened, and what did you do to find a solution?
- Do you know anyone who utilizes mood tracking tools, and if so, have you observed notable improvements in their well-being as a result?
- Is there anyone that you are currently comfortable sharing information about your mood with?
- Have you encountered any issues or challenges while tracking your moods?
 - o How do you think this issue could have been prevented?

TOPIC 3: Perceived Impact of Disrupted Sleep Schedule

- Do you often feel tired throughout the day?

- Do others often comment on their perception of your tiredness (circles under eyes, look tired, etc?)
- In your opinion, how do you think daily activities, such as university classes, social interactions, work, and extracurriculars, might affect your moods?
- Have you noticed any patterns between irregular daily activities and negative moods?
- Have you found yourself more irritable than normal during periods of high intensity (exam block, assignments due, etc)?

TOPIC 4: Views on Mood Tracking in an Organisational Context

- Do you think, as a whole, mood tracking can be a beneficial tool in self-assessment and personal management, and if so to what extent?
- Would you be personally comfortable having technology (such as a phone application) track your reported mood and sleep schedule and make health recommendations, such as suggesting appropriate bedtimes and setting reminders?
- Do you hold the perspective that the challenge lies not in your inherent inability to regulate your sleep schedule, but rather in the time constraints imposed by juggling university, work, and social commitments, which may leave insufficient room for adequate sleep?
- Do you believe that mood tracking tools could provide emotional support to you or others as a university student?
 - What sort of features would you find personally beneficial in this context?

Follow-up Interview Questions

Questions:

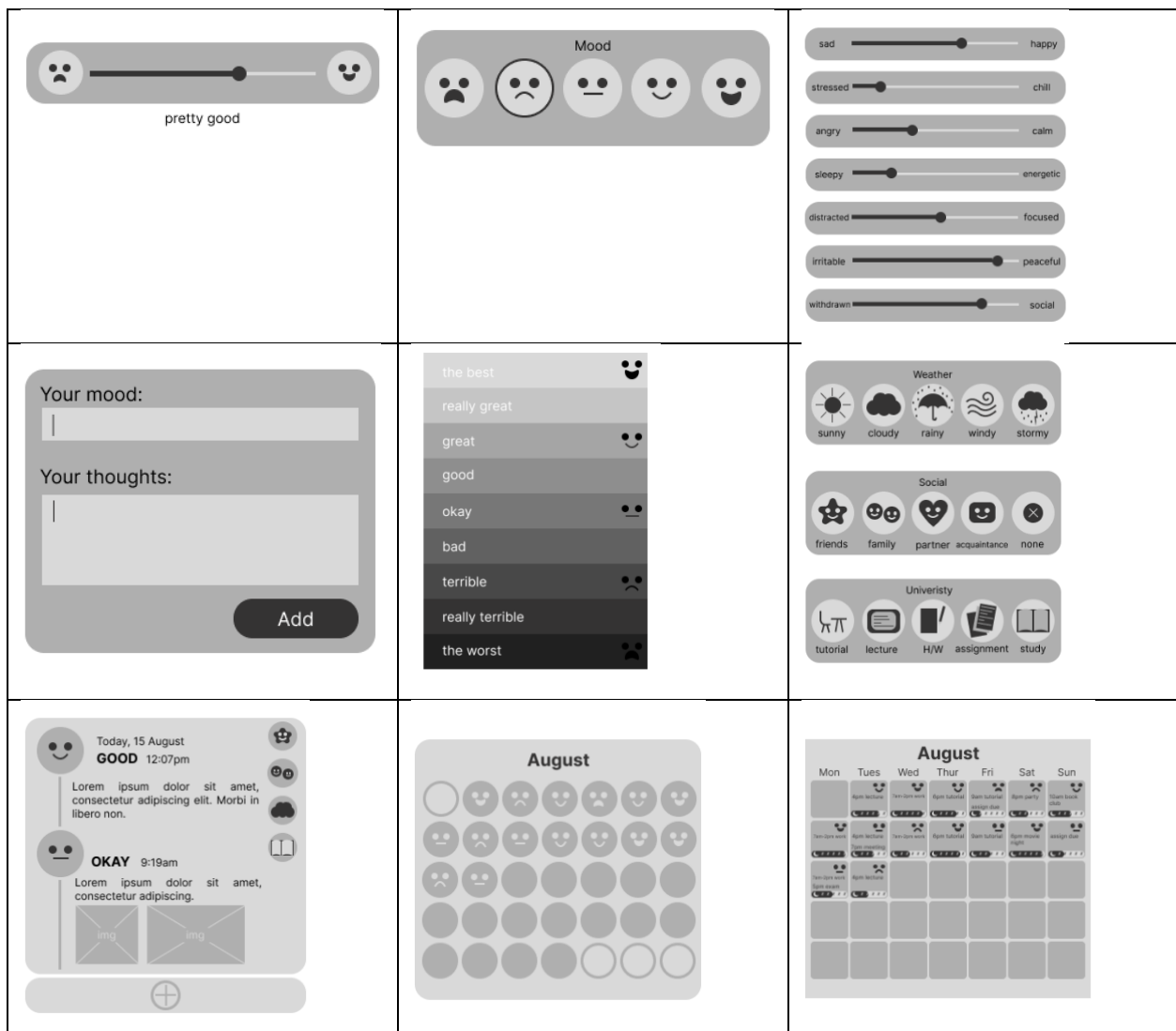
- Since our last interview, have you been consistently tracking your mood and sleep patterns using the mood tracking tool we discussed?
- Did you use any specific strategies or reminders to help you stay consistent with mood tracking?
- Have you noticed any patterns or trends in your mood fluctuations over the past week that you might attribute to certain activities or sleep patterns?
- Did you encounter any surprising realizations about how your activities and sleep impact your mood?
 - Have you observed any correlation between the quality or quantity of your sleep and your overall mood throughout the week?
- Were there any instances where reviewing your mood patterns prompted you to make specific changes in your routine or habits?
- Did you face any challenges or setbacks in maintaining consistent sleep patterns or tracking your mood? How did you overcome these challenges, if any?
- On a subjective level, do you feel that keeping a mood tracking diary has had any positive effects on your emotional well-being? If yes, could you elaborate on these effects?
- Looking ahead, do you plan to continue using the mood tracking tool to monitor your mood and sleep patterns? Why or why not?
- Are there any adjustments you would suggest to improve the effectiveness or user-friendliness of the mood tracking technology? Such as and other information you would like to capture.

- How would you feel about sharing this information? Who would you feel comfortable for it to be shared with?
- Reflecting on your experience with mood tracking over the past week, do you think it offers any advantages over your previous methods of managing your schedule and emotions?
- Are there any external factors you might attribute to a perceived change in your mood / quality of sleep outside of the scope of this project that have occurred in the past week? An example might be the loss of a pet, a promotion at work, etc.
- Is there anything else you would like to share about your experience with mood tracking during the past week that we haven't covered in these questions?

7.2.2 Make Method

Figma file to create cards

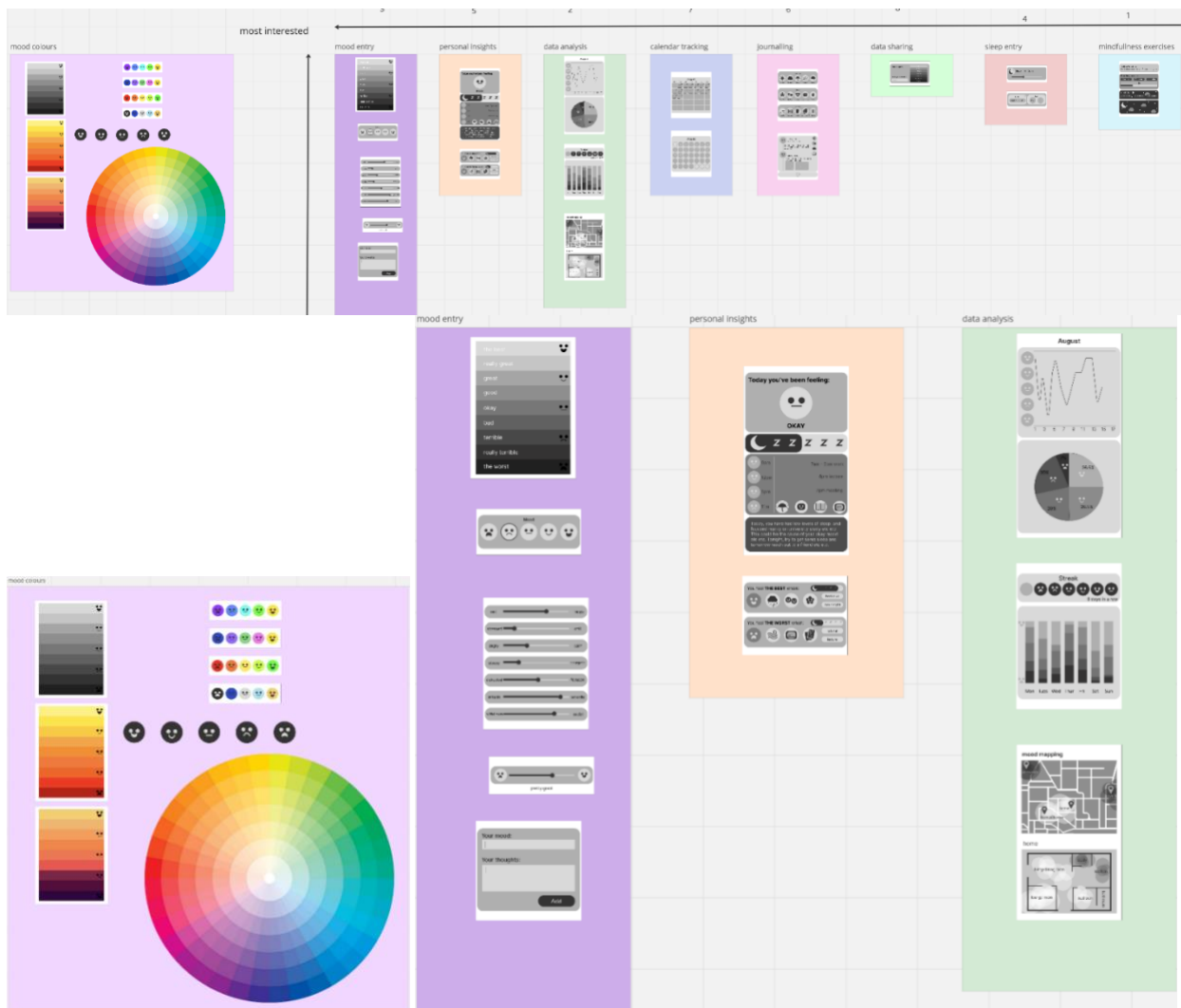
[Figma file](#)





Miro board for activity

Do Method: Cart Sorting Activity





7.2.3 Do Method

[Microsoft form: Mood Tracking Diary](#)

Mood Tracking Diary

Please record your responses at least once a day over the next week. Thank you :)

* Required

1. How are you feeling currently? *

2. On a scale of 1-5, rank your mood *

3. Where are you right now? *

4. What activities did you do today? *

- ☐ study
- ☐ class
- ☐ work
- ☐ social meeting
- ☐

5. How many hours of sleep did you get last night? *

- ☐ less than 4 hours
- ☐ 4 hours
- ☐ 5 hours
- ☐ 6 hours
- ☐ 7 hours
- ☐ 8 hours
- ☐ 9 hours
- ☐ 10 hours
- ☐ more than 10 hours

6. Did you take a nap today? *

☐ Yes

☐ No

7. Are you feeling tired or worn out? *

☐ Yes

☐ No

8. On a scale of 1-5, how busy were you today? *

9. Have you used technology today? *

☐ Yes

☐ No

10. If yes, what type did you use?

☐ phone

☐ laptop

☐ tablet

☐ tv

☐

11. Further, for what purpose was this technology used for?

☐ University

☐ Work

☐ Social activities

☐ Gaming

☐ Entertainment

☐

This content is neither created nor endorsed by Microsoft. The data you submit will be sent to the form owner.

 Microsoft Forms

7.3 Appendix C: Anonymized Study Data

Interview Recordings

https://connectqut.edu-my.sharepoint.com/:f/g/personal/n11033924_qut_edu_au/Eu6voY3QPw9MlrgEHPFI-MB6foZMfc7Zn--n05e3-iwpg?e=CZCBkW

Interview Transcripts

Participant 1

00:00:01 Interviewer

Welcome. Thank you for your time today. Let me briefly tell you about the aim of this interview. We are researching the effects of disrupted sleep schedules among university students heavily engaged in extracurricular activities, and exploring the potential of mood tracking technology as a supportive tool in this context.

Please read the consent form and let me know if you have any questions. Is it OK if I start recording?

00:00:21 Participant 1

Yep.

00:00:25 Interviewer

Could you please give me some background on your university studies?

00:00:30 Participant 1

I just finished a full time degree that took 3 1/2 years at the University of the Southern Queensland. I was studying a Bachelor of Business majoring in Accounting and Finance, and I've just graduated that one and then I applied for the graduate nursing degree at the University of the Sunshine Coast. And now I'm like 6 weeks into that course and that course is also full time and it's on campus whereas my other one was online completely. I take three classes currently.

00:01:12 Interviewer

Yeah. And that's full time?

00:01:15 Participant 1

Yep, 75% and over. It's full time.

00:01:19 Interviewer

Could you tell me a bit about your typical extracurricular commitments beyond academics?

00:01:25 Participant 1

I currently have a part time job. I work as the financial manager for a bus company where I live and I also help with reception. That's just Monday, Tuesday. That's about like 16 hours a week currently. I mean? I see my boyfriend on the weekends and I like to read a lot of books.

00:01:50 Interviewer

Yeah. Good. About how much of your time would you estimate that these commitments take up in total of your week?

00:02:03 Participant 1

Just uni or just the social activities?

00:02:08 Interviewer

Do just uni, then just social activities.

00:02:12 Participant 1

so OK, yeah. It's pretty much the full day from Wednesday to Friday. And then I usually have a break on the weekend, so... 30 hours a week to uni?

...

00:02:28 Interviewer

Yeah. And then a break and maybe some study on the weekend?

00:02:32 Participant 1

Yeah, maybe another 10 hours during the night and on the weekends. So probably 40 hours of the uni and... Social activities. Just 15? Yeah, just...

00:02:49 Interviewer

Like maybe a day or so?

00:02:50 Participant 1

So, yeah.

00:02:54 Interviewer

How much sleep would you say that you regularly get or if there's like a pattern?... Through the week, depending on work and uni?

00:03:03 Participant 1

Probably get more sleep on the weekends, so probably like 8 hours on the weekends, maybe 7. During the week, maybe more like 5. Especially before the nights before I go to uni because I have to wake up early.

00:03:22 Interviewer

Yeah.

00:03:24 Participant 1

Ohh yeah, I wake up early Wednesdays to Fridays to catch the bus from where I live to the uni and I have to get it at, well, 6:00 AM so I get up at 5:00. Which is why I only get about 5 hours of sleep. Just stay up late reading a book or doing uni work depending.

00:03:44 Interviewer

Have you like, ever skipped sleep entirely in favor of any commitments at university? ... Or something else you know just...

00:03:54 Participant 1

Yeah, I'm honestly sometimes I really get into the reading and I will definitely stay up till. Like all night. And then you regret it the next day.

00:04:04 Interviewer

How often do you... Is it like a really late night or no sleep?

00:04:10 Participant 1

Maybe like? No sleep would probably be like once a month, but a late night maybe once a week. Like really late, like in the morning. Like 2:00 AM? Yeah, maybe once a week or twice a week, depending on where in the semester.

00:04:25 Interviewer

Do you ever take like stimulants, coffee, caffeine of any type, that you use to maintain your energy to do these activities?

00:04:35 Participant 1

No, no. I mean I have coffee and I have energy drinks occasionally, but I don't take them to actually stay awake, and they don't really do that anyway.

00:04:46 Interviewer

Do you ever take some short naps, long naps, anything during the day to replace that? Any sleep that you lose at night?

00:04:55 Participant 1

Nope, I am not a nap taker. I never take naps unless I'm sick.

00:05:01 Interviewer

OK. And we're going to talk a bit about your prior experiences with mood tracking. So have you ever had any prior experience with personal mood tracking, so you've just chosen it yourself?

00:05:14 Participant 1

Yes. Yeah, I actually tracked my mood like a couple months ago for a couple of weeks just cause I was curious.

00:05:21 Interviewer

Right. Could you walk me through the steps of how you tracked your mood. Like what you did and why?

00:05:27 Participant 1

Yeah, I was just feeling very stressed and a little bit down. So I just wanted to see if there was like a pattern or like how down I was by tracking it each day. So I just went on, you know, App Store, my iPhone and was looking at mood tracking apps and I was looking the highly rated ones with lots of reviews and stuff. And I just downloaded one that honestly was just sort of pretty, yeah. It got me got with the looks of it.

00:05:51 Interviewer

Of course, the aesthetics.

00:05:55 Participant 1

Yeah. And I got that one. And then I used it for two weeks, so I downloaded it and I had to input my mood. It asked me of like, a variety of questions about if I was feeling stressed that day, how I was feeling about my studies. I think it was targeted towards students or at least young adults. And after two weeks of that, it gave you a little like insight as to like how overall you're going and gave you little like programs or? Ohh what's it called?

00:06:39 Interviewer

And it it helps you like... affirmations and?

00:06:42 Participant 1

Yeah, it was like mindfulness tools, and if you were really, yeah. If you're feeling stressed, it gave you like a link for mindfulness, and that if you're feeling down, it might give you something like with tips to feel up like, you know. Taking a walk outside. Yeah, just things like that. And it was it was. Yeah, I quite liked it, but. After two weeks, I kind of got sick of doing it because it would make me do it like 3 times a day.

00:07:11 Interviewer

With like notifications?

00:07:13 Participant 1

Yeah, I had a notification on my front screen and like I wanted to make the most of like, what the app did. So I tried to do it, but occasionally I just like I don't want to do this three times a day, cause it takes probably like 5 to 10 minutes with the questions.

00:07:29 Interviewer

So, is the mood input it asking you specific questions?

00:07:33 Participant 1

Very like very, you know, specific questions more so than well, it was both actually I had to put whether I was feeling like depressed or happy or stressed? And then it asked me specific questions after that like...

00:07:47 Interviewer

Right.

00:07:49 Participant 1

How are you feeling about your studies today? Did you wake up feeling refreshed? Kind of like very specific questions. And yeah, it just got a bit too much after two weeks, so I waited to see what like, they thought like the diagnosis, not really, but that. And then I just deleted the app. Also it costs money and I didn't want to pay for the full version, but I think the actual like full version would have been a lot better than just the free part of it.

00:08:19 Interviewer

So with a lot of it, the time? Did you like the options? Would you like to have them? But like, voluntary, you just, decide when you put them in and you decide whether you want to do questions or just the mood. Like was that the problem that took time or did you just not want to input it at all?

00:08:34 Participant 1

At the start I really liked the questions cause I've never... like I've done mood tracking, like maybe a while before that, and it was just very like, happy or sad? whereas this one felt it kind of it was individualized towards you, personalized after you put your insights in for a few days. It just kept on, like. More personalized for you, so I really liked that. It was more so the fact that it took so much time up with doing it three times a day. So I know it was like taking and, like, made little graphs of like if you were feeling more stressed, you know, in the middle of the day, maybe compared to in the morning before work or whatever. But it was just the time factor really.

00:09:15 Interviewer

Yeah. That's good feedback.

00:09:17 Interviewer

Can you think of any times when your mood was like drastically and quickly changed like a sudden mood swing or anything?

00:09:40 Participant 1

Yeah, honestly, my moods change very fast. So if I'm really stressed, I can go from just being quite calm and then I'll just kind of. Freak out a little bit or if I have an assignment to you very soon and I'm really stressed about it, then my moods will really fluctuate between maybe irritable. And really energetic and getting stuff done, then down in the dumps a little bit, so yes, yes. Quite drastic.

00:10:29 Interviewer

Was there like any specific situations that you had and then you like, what did you do to find a solution to that?

00:10:47 Participant 1

I can't think of an exact situation. I'll just like kind of make a little scenario that's probably definitely happened. I'll just go back to when? Ohh. OK. When I have an exam in a couple of weeks and you know I've procrastinated for the last 11 weeks and it's getting to that time and I go, why do I do this every semester? And I just day by day, get increasingly like irritable. And really stressed. And yeah, I can fluctuate my mood with that pretty quickly when I get really stressed, it can change from me running about to me just laying in bed, procrastinating. So then, yeah, craziness. I don't know that I ever have found a solution for it. I more so just try and like make lists like a list of things that I could get done that day and then maybe things to do that week because if I break down everything I'm stressed out about, especially if it's for uni or something then it feels more manageable and that's sort of my solution. And I usually try and find time even like when everything's really busy too, read a book for maybe half an hour, or watch a show or a movie on the weekends to de-stress. Yeah.

00:12:08 Interviewer

Do you know anyone else who utilises mood tracking tools?

00:12:17 Participant 1

Yeah. No, I don't actually.

00:12:23 Interviewer

Is there anyone that you are currently comfortable sharing information about your mood with? So someone you might go to when you're feeling down to talk to?

00:12:33 Participant 1

Yeah, pretty much all of my family, like my grandparents, Mum, dad, sister, brother. Boyfriend. Quite a yeah, definitely family.

00:12:43 Interviewer

Yeah so, you're comfortable sharing personal kind of emotional information with some people?

00:12:48 Participant 1

Yeah. No. Yeah, not everyone. I'm not about sharing my mood with everyone. But yeah, people who I'm close with, definitely I don't mind.

00:12:56 Interviewer

Yeah. Have you ever encountered any issues or challenges while tracking your moods? So like any, I guess you were answered that before. It was just a bit time consuming?

00:13:07 Participant 1

Yeah, just a bit time consuming when you're already a really busy uni student and you've got to go in three times a day and you know most people are busy. Once a day is definitely understandable. Yeah, when you've got that, yeah. Just time. So.

00:13:22 Interviewer

To prevent that, you would kind of say maybe—

00:13:25 Participant 1

Yeah, maybe if they could have, maybe if you had a choice between how many times you wanted to track your mood for you personally. So I would have probably chosen once a day.

00:13:36 Interviewer

Did you like the notifications? Would you like notifications or would you prefer to just put it in?

00:13:42 Participant 1

No, I like the notifications because I would forget otherwise.

00:13:48 Interviewer

Yeah, OK. So now we're going to talk a bit about your perceived impact of disrupted sleep schedules. How often would you say you feel tired throughout the day?

00:13:58 Participant 1

Umm quite often like very often.

00:14:02 Interviewer

Have any has anyone ever commented on their perception of you being tired... like said, ohh man you got lots of eye bags going on.

00:14:10 Participant 1

Literally 2 days ago. Yeah, when I was at uni. I'm just waiting for my class and, One of my classmates came up to me and said like you look so tired, I was like, wow, thanks. Thanks. Yeah.

00:14:22 Interviewer

In your opinion, how do you think daily activities such as your Uni classes, social interactions, work, extracurriculars, that kind of thing might affect your mood?

00:14:39 Participant 1

University. The assessments and the classes themselves, definitely. Well they add to my tiredness honestly, also the factor of me having to travel to uni adds my tiredness. Just the time it takes up then adds to my stress. So mood, yeah. Makes me a bit moody. Work is making me very stressed lately because I've got a lot of responsibility at work and I'm struggling to fit it in with my new university degree. And I'm thinking that cutting back, so currently I'm quite stressed out with everything I need to do. Just reading and hanging out with my family and stuff helps me de-stress a bit like. Yeah, it's time away from my classes where I can stop thinking about what I have to do and it gives me a break from that. So it helps with my stress and mood it makes me feel a bit better.

00:15:45 Interviewer

Do you think you've ever noticed any patterns between irregular daily activities and negative moods, or just, you know, busyness and being, you know moody?

00:16:00 Participant 1

Yeah, yeah. Now that I do get the two days of work plus the three days of uni, that's like I've got those five days really full. And then I also have expectations of what I need to do on the weekend. You know, cleaning the house. Shopping, that kind of thing. The business definitely adds to my negative mood and honestly, I get pretty grumpy on the weekends because I'm trying to recover from being so busy during the weeks. During the week days. Sorry, yeah.

00:16:32 Interviewer

So you would say that you probably find yourself a bit more irritable than normal during periods of like high intensity. Exams, assignments—

00:16:40 Participant 1

Yeah, quite noticeably. I think to people around me even.

00:16:45 Interviewer

OK. So our next topic is views on mood tracking in an organizational context. So, do you think that as a whole mood tracking could be a beneficial tool in self-assessment and personal management? And if so, to what extent.

00:17:02 Participant 1

Yeah, I mean, my experience with mood tracking was fairly positive. Like I chose it and I was interested in tracking my mood for self-assessment just to see how it was. And I did enjoy. It was just the time factor. I do think it could be quite beneficial, especially for maybe people with a low mood. And they're trying to improve that or if they wanted to see a doctor about their low mood, something like a mood tracker could definitely be beneficial to show a doctor and proven back how they're feeling. So I think it's important for the self and also... For others or therapy or anything like that.

00:17:44 Interviewer

Yeah, definitely. So would you personally be comfortable having technology such as a phone application track your reported mood and sleep schedule and make health recommendations such as like suggesting appropriate bedtimes and setting reminders?

00:17:58 Participant 1

Definitely. I really do like that, especially the personal aspect. It may freak some people out, but I quite like how it can personalize to yourself, like by putting in when you answer questions and then it starts to personalise itself. I do feel fairly comfortable with that. Like very comfortable. Yeah, that's fine.

00:18:18 Interviewer

So like if it was to tell you specifically, you know, go to bed earlier. Or give you like an actual notification reminder, you would be happy with that? or find it too invasive?

00:18:30 Participant 1

I won't find it invasive and I'd be fine with it. I can't promise I'd actually listen to it. But I might go. Ohh yeah. I'm not really getting enough sleep. I really need to do something about that. So yeah, and I think that's a good thing, yeah.

00:18:46 Interviewer

Do you hold the perspective that the challenge lies not in your inherent ability to regulate your sleep schedule, but rather in the time constraints imposed by juggling university work, such commitments as such, which may lead insufficient room for adequate sleep?

... So like kind of, you're not getting enough sleep and it's less to do with you actively deciding, I never want to sleep and I want to read all night, every single night? But it's because you're busy during the day, maybe. So you're trying to carve time?

00:19:19 Participant 1

Yeah. Most of the time. The majority of the time it's me trying to fit my busy schedule into it and just ending up late at night, you know, doing leftover uni work after my job. Only occasionally is it me deliberately staying up to read a book. And if it is me staying up deliberately to read a book, it's because I haven't had time during that day because of uni or my job to actually have anytime for myself and so I will sacrifice my sleeps, like my sleep schedule, for that personal time to do what I want to do, kind of.

00:19:55 Interviewer

Yeah. Do you believe that mood track and tells could provide emotional support to you or others? As a university student specifically?

00:20:04 Participant 1

Yeah, I do. I think I think it's quite beneficial for especially university students. I mean, pretty much all of us are, have times of high stress and. I think it can be an important tool to track your moods to just check everything's OK I suppose. It's kind of hard to just keep it all in your head if you're writing it down you can look back and analyze it, kind of if you want. So yeah, for university students, definitely cause we're all quite stressed and have busy lives

00:20:38 Interviewer

Yeah. What sort of features would you find personally beneficial in context like just you can say generally if you don't

...

So for example in an app, you said that it gave you graphs. Did you like it, giving you graphs and tables? Not, maybe not tables, charts and stuff to help you look at it? Is that something you are interested in?

00:21:02 Participant 1

Yeah, I like that visual representation of the change in my moods. Like, you know, part way through the week, feeling really low. And then on the weekends my mood would maybe come back a bit higher. I quite like that graph representation of it after it got in like a week or so of results from me.

00:21:25 Interviewer

Anything to do with maybe it like, prompts it gave you, Like, did he give you anything saying, you know you're feeling this? So you should do this other thing. Or here's the daily affirmation. Or take some time to breathe. You know, they give you anything like that. Or would you be interested in anything like that?

00:21:41 Participant 1

It gave me that, like those personal insights, and I really did like them. And I'd be interested in them. In a free thing. Yeah. Like you feel like for those things you always have to pay. And for university student, we're often quite already short of money. So we don't want to do that. But I like that personalized insights and the aspects of it. And yeah, they're maybe suggesting you get some more sleep to feel better or yeah. If you take 2 minutes to yourself to do some mindfulness breathing activity. Yeah.

00:22:18 Interviewer

Yeah. It's a bit hard to visualize. So we'll show you that in a second with the next activity, but thank you for your answers so far. Before we move on to the card sorting activity, is there anything additional you would like to add to the general topic raised during this interview that is pertinent to your experience but not explicitly covered by any of the questions?

00:22:34 Participant 1

I'm good, thank you.

00:22:36 Interviewer

OK. So to conclude this interview, I would like to get you to perform a short card sorting activity to gauge your interest in some specific features you would like in the digital mood tracker. So this will help with the last question. I'm going to give you 8 digital cards in front of you that each denote a different potential feature in a mood tracking application and I would like you to rank your interest in each feature from most interesting on the left to least interesting on the right. So just the general overall feature take as much time as you need and let me know once you are happy with your positions.

card sorting

00:23:12 Interviewer

If there's something that's equal, that's OK, just put them, you know like above each other. If you can't make a decision. Yeah, don't don't stress too much if you're struggling.

00:26:53 Participant 1

I mean, there's nothing I don't like here to clarify.

00:26:59 Interviewer

It's just, least maybe relevant to you, yeah.

-- talking about calendar--

00:27:18 Interviewer

It's just general preference. So which one do you personally find more useful like...

00:27:26 Participant 1

Maybe this one. Because this one I can't always remember what happened. You know the day before? Yeah, just because. Like I can't really find an insight for that.

00:27:34 Interviewer

Yeah. Just because you were generally feeling happy, doesn't mean, you know? Yeah.

00:28:15 Interviewer

OK, so now if you will look at each of the cards within the feature, so like kind of the embedded cards that show alternative user interface options. Could you please indicate a preference of the interface design by ranking from most appealing at the top to least appealing at the bottom so. So for example, just for this mood entry. You know, if you like using words, put that at the top and then If you like, you know, they're just pictures. So if you prefer a simple input, you'd put that higher if you.

00:28:51 Participant 1

Do want me to talk through that or just do...

00:28:53 Interviewer

I'll ask you after just.

00:28:53 Participant 1

Gotcha.

00:29:56 Interviewer

Again, if you like to. if you go, I want both things.

00:29:58 Participant 1

Yeah. Can I put them side by side?

00:30:04 Interviewer

So you should be able to, yeah. Yeah, don't stress so much if you like them equally. You can just.

-- discussing calendar--

00:30:56 Interviewer

If you prefer a combination, as in, you want the faces and the sleep, I can take note of that, you know. Like if it's the words you feel are not... You know, like what, you're kind of struggling. Is it because this ones too detailed and that's?

00:31:08 Participant 1

Not detailed enough. Yeah. It's like the middle of. Both it's like.

00:31:13 Interviewer

Like you would like the like the emotion and the sleep? is that?

00:31:19 Participant 1

Yeah. So I'll just put them equal.

00:32:24 Interviewer

OK, so if you're happy with that, just the last section here. So we'll look at some colors here. You can pick from one of the predefined... So the color schemes for the app. So everyone perceives emotions differently. If you had a color scheme kind of looking at one color being happy and one being, you know sad. Upset. How would you like that? Do you want one of the predefined ones or you can move these little faces just onto the color wheel if you have a different opinion.

00:33:07 Participant 1

Can I have multiple?

00:33:11 Interviewer

Yeah.

00:33:12 Participant 1

Do you want me to choose one of these? Or just go that one or that one or that one.

00:33:17 Interviewer

Ah, whatever you like. If you go happy. Could be one of these. That's OK. Like, if you go, I kind of like this one, but I could also like this, that's OK.

00:33:36 Participant 1

If I'm feeling really happy, I might. Like to choose my own colors, just how much I have, I can choose some colors now, yeah.

00:34:24 Participant 1

Aw these's no angry face

00:34:27 Interviewer

That's just like. I'm really unhappy. I'm angry or I'm crying.

00:34:32 Participant 1

I was leaving red for angry but.

00:34:35 Interviewer

Would you prefer more? I can write some words and you can—

00:34:39 Participant 1

I feel angry a lot. So. Maybe.

00:34:41 Interviewer

Would you like sad and angry separate?

00:34:42 Participant 1

Yeah, maybe.

00:34:45 Interviewer

Yeah, let me do that. So angry. Sad. Instead of this one.

00:35:09 Interviewer

Take that one off, is there? Are there any others that aren't expressed in the faces. That you want?

00:35:17 Participant 1

No. That's good. Just angry and sad and quite different emotions. to me. So if I had to like. Pick colours for them. They wouldn't be the same. You know what I mean?

00:35:22 Interviewer

Yeah, would you prefer... So if you're inputting moods. Currently it's kind of sort of a range from like positive to negative. Would you prefer it as that positive to negative general? Would you prefer specific like sad and angry distinguish. Both of them are negative emotions, but they're different? Would you want to distinguish them?

00:35:44 Participant 1

I'd probably want to distinguish them.

00:35:47 Interviewer

So would you prefer... over in the. Yeah, over the input. So you want them distinguished. And then—

00:35:55 Participant 1

Yeah, yeah.

00:35:56 Interviewer

Over here, maybe multiple kind of things. So like a red down here as opposed to blue in the same spot? (referring to graphs – red/angry and blue/sad both as 'negative' but displaying different negative emotions in the same spot)

00:36:09 Participant 1

Mh. (affirmative)

00:36:38 Interviewer

So are you happy with all your decisions? OK, so now let's just talk a bit about the results.

00:36:44 Interviewer

So what makes you want to see these things you've ranked as your highest, the most. So I mean I guess mood data entry is pretty obvious. So you can talk about personal insight if you prefer. Like why is that something that interests you the most in an app?

00:37:02 Participant 1

I mean, I sort of mentioned it, but I just really like how it can personalize what you're inputting to you, so. It's not so general. It's not the same insights for everyone makes you feel a little bit special.

00:37:17 Interviewer

And maybe a bit more useful?

00:37:20 Participant 1

(referring to personal insights card)

Yeah, it is a bit. And I like that kind of analysis like. Like the example you know, I really like it when it's rainy. So I watch maybe my favorite movie and it makes me really happy and I don't know. I just think that's kind of cool. They can analyze that and tell you that information. And how you could see the link between yeah, low sleep and low mood and maybe if more people saw that more people would try and actively get more sleep.

00:37:58 Interviewer

Yeah, definitely. And then. So what makes you want to see these things you've put low down the least? What makes you less interested?

00:38:05 Participant 1

The data sharing. I can see how it's very helpful for people, maybe especially if they're wanting to see their doctor for low mood or if they go to therapy and want to share that kind of information. But for

me, it's just not really what I would be after, because I'm not going to do that, but I can see how helpful for other people, just not so much me.

00:38:27 Interviewer

Okay. Maybe journaling and sleeping journaling?

00:38:31 Participant 1

Journaling. I just. I like that top option I've put like. I like how you can pick little faces or with the weather and the social activities and what I've been doing at university that day. So I quite like that, but I wouldn't be interested in writing like a little journal entry. I've tried that before and I always gave it up because it was just, too much and I just couldn't be bothered. I like having those options already there, just to select from. Sleep entry, I'd be happy to do that, especially with the analysis, just some of the other things interested me more.

00:39:06 Interviewer

Yeah. So it it was more, you're not that interested in entering it, but you want to see the analysis of it?

00:39:09 Participant 1

Yeah, that's it. Yeah.

00:39:12 Interviewer

So it's not that you don't want the sleep, it's that you're interested in seeing how it affects you.

00:39:15 Participant 1

Yeah, I mean, I'm interested in the journaling too, just not as much as. Yeah.

00:39:25 Interviewer

Is there anything about any of these that you want to mention that stood out? As in a feature over the other feature. Or, interface over the other interface.?

00:39:37 Interviewer

So why did you pick this location one over the graphs, kind of? thing

00:39:46 Participant 1

I am interested in both just saying, but I have never seen that, the map one ever and I've gone through a few like mood tracking apps just to find the ones I want to use. But in the past. I just think that's really cool and not something I would have thought of but really cool how you could see the like correlation between different areas like yeah, lounge room, family time, movie time, happiness or your room or like. Probably not your room. Maybe. Yet your study or where you wherever you study, maybe more stressed and just that's like, interesting to me, yeah.

00:40:26 Interviewer

Yeah. Well, are there any others that you want to... so for the sleep one. Why? Why did you pick the slider above the time manual input?

00:40:37 Participant 1

In my head it's just easy to slide a bar for something like sleep rather than having to actually input the time. Yeah, or just if I have an estimate I can just put like oh, I think it was like 6 hours rather than like having to actually go oh, it was 11 to 5.

00:40:58 Interviewer

Yeah, just easy inputs, yeah. Absolutely. And then if you could describe why you were more interested in certain things in this mood entry?

00:41:04 Participant 1

Yeah, I really like that top one just because there's more options, I suppose, than just sad to happy. And I do like just picking from the little faces. Like maybe both are really good options. But I just really like how it's separated out, like sad from happy, stressed to chill because. I could be like very stressed and still sort of happy if you know what I mean? Or yeah, angry and sleepy, you know, I just like how they separate out those moods because there's more to me than just sad.

00:41:38 Interviewer

Yeah. You can be sad and focused and sad at the same time, but focused would be considerably positive.

00:41:43 Participant 1

Yeah, I just liked those options

00:41:44 Interviewer

and then so you prefer the simple one over a slider? (referring to mood input)

00:41:47 Participant 1

Yeah, I know. I I said before it was more simple, but this one I just liked picking from the faces like just the five ones rather than sliding it.

00:41:54 Interviewer

Again, just easy and quick. This is similar and you said you didn't like words, yeah?

00:42:00 Participant 1

yeah, no.

00:42:04 Interviewer

Is there anything else? ... not really? I think that's everything. Yeah. As we said before, the calendar. A best of both worlds is preferred.

00:42:11 Participant 1

Yeah, just a little less on that first one, but I like that little face.

00:42:20 Interviewer

So you like the idea of perhaps the faces and the colours denoting it, but also including maybe the sleep thing?

00:42:21 Participant 1

Yeah, yeah.

00:42:28 Interviewer

And then for personal insights, you just you want both?

00:42:32 Participant 1

I just think they're so interesting. I'd love both of them. Honestly.

00:42:37 Interviewer

Yeah. So perhaps on a single page you could scroll down and have this one just like as part of the other one or something?

00:42:42 Participant 1

Yeah, no, I really like both of them a lot, just. Yeah.

00:42:52 Interviewer

Thank you so much for your input on all of that, and thank you for your time and participation in this project. If that's everything and there's something else you want to discuss, I will now stop the recording.

00:43:03 Participant 1

Yep, that's good. Thank you.

00:43:06 Interviewer

Thank you.

Participant 1 Follow Up Interview

00:00:01 Interviewer

Welcome back. Let me thank you once again for both your time today and participation thus far.

Let me briefly tell you about the aim of this follow up interview. Based on your previous interview and the mood tracking diary you have been keeping over the last 5 days, the goal of this interview is to determine any measurable change in your quality of sleep and overall mood that can be attributed to this project. Please do not feel as if you are required to answer in the positive or negative, we would greatly prefer objective answers to favourable outcomes. This interview will also be considerably shorter than the first, as we have less ground to cover regarding your background and are simply attempting to measure any changes or patterns.

Is it ok if I start recording?

00:00:39 Participant 1

Yep.

00:00:40 Interviewer

OK, so since our last interview, have you been consistently tracking your mood and sleep patterns using the mood tracking tool we discussed?

00:00:49 Participant 1

Yes, I did it five days in a row about the same time every day, I think.

00:00:51 Interviewer

Did you use any specific strategies or reminders to help you stay consistent with the mood tracker?

00:00:54 Participant 1

Yes, after the first day I used just the reminders on my phone to set a time for a reminder to do the mood tracking. Otherwise I definitely would have forgotten.

00:01:13 Interviewer

Have you noticed any patterns or trends in your mood fluctuations over the past week that you might attribute to certain activities or sleep patterns?

00:01:23 Interviewer

It's just like anything kind of that we were tracking from the diary.

00:01:27 Participant 1

Yeah. Yes, I noticed that I answered pretty much the same on most of the questions in the mood tracking when I was actually in my room. It's just probably because I do all my study— well when I'm at home, when I'm studying, I do it in my room all the time. So there may be some like anxiety related to my study.

00:01:48 Interviewer

Yeah, maybe a correlation there.

00:01:48 Participant 1

I was studying in my room. Yeah, definitely. Also, the sleep patterns I'm definitely, I know that I'm definitely grumpier when I'm tired, and I definitely noticed that with what I was submitting.

00:02:00 Interviewer

Absolutely. Did you encounter any surprising realizations about how your activities and sleep impacted your mood?

00:02:07 Participant 1

Yeah.

00:02:08 Interviewer

Yeah. Have you observed any correlations between quality or quantity of your sleep and your overall mood throughout the week?

00:02:17 Participant 1

So. I already said that, but yeah, I'm definitely. When I had poor, like poor quality, so woke up a lot, or if I just didn't get to sleep really late and then had to get up really early for work or uni, my mood was definitely quite low and I was agitated and grumpy and you know, uni's harder and worked harder and just definitely a correlation there, yeah.

00:02:41 Interviewer

Were there any instances where revealing your mood patterns prompted you to make specific changes in your routine or habits? Or that you could have seen that you should have but maybe didn't get a chance to?

00:02:56 Participant 1

Um. Yeah, I definitely should be getting more sleep. I haven't put that in place because I've only did it for five days and I'm just busy at the moment, but I definitely noticed that and I just know myself that I should be sleeping more to be a better and happier person, yeah.

00:03:27 Interviewer

Did you face any challenges or setbacks in maintaining consistent sleep patterns or tracking your mood and if you did, how did you overcome these challenges?

00:03:42 Participant 1

I didn't have any challenges with tracking my mood. I thought the questions were easy and I had that reminder again to remind me if I didn't, I would have probably forgotten. I definitely do struggle with maintaining consistent sleep patterns though. A bit of an insomniac, I don't sleep very consistently very well.

00:04:09 Interviewer

So yeah. Yeah. On a subjective level, do you feel that keeping a mood tracking diary has any positive effects on your emotional well-being? And if yes, could you elaborate on what those effects might be?

00:04:25 Participant 1

Yes, I do think it's beneficial. And it definitely has positive effects, especially when you see the results. So if you saw the analysis or if I saw my analysis of those five days. I could make some positive changes, probably regarding sleep, or maybe study in a different place than in my room or something and see, if I had the results. Then I definitely think that it's a positive thing to do to track your mood.

00:04:52 Interviewer

Yeah, but not particularly with these five days perhaps.

00:04:52 Participant 1

I think. No, I don't think it was long enough. So maybe like 2 weeks as a minimum of and then being able to, you know, put that in a graph or something because if I could see that sleep pattern and that correlation between low mood and sleep, then I may think to myself, okay, this is something that I really do need to change about myself. But right now as there was no analysis of my result I won't make any changes probably. Also it's just the time in uni, so it's hard to get more sleep when you're so busy.

00:05:31 Interviewer

Looking ahead, do you plan to continue using any mood tracking tool to monitor your mood and sleep patterns and then why or why not?

00:05:45 Participant 1

I don't think I will. In the past I've used a few different apps and I've always gotten rid of them pretty much within two weeks because while I like most of the features you either have to pay for them after a while to get the really good features and I just don't want to pay for it. Or so yeah, I just don't think the market has available what I would want in one yeah.

00:06:10 Interviewer

Perhaps not the exact feature set that you would like?

00:06:10 Participant 1

No. Yeah. So, no, I don't think I will.

00:06:16 Interviewer

So on that, because it's not, we're saying that's not the current feature set. Are there any adjustments that you would suggest to improve the effectiveness or user friendliness of the mood tracking technology? So you can look back at the features we discussed with the card tracking activity? I can pull it up if you can't remember. Were those ones you liked? Was there anything else you would appreciate?

00:06:36 Participant 1

No, I really liked everything on that card sorting activity. If you could pull it up, I'll just specifically mention a couple.

So I kind of mentioned, but I really like that graph. I really like, you know, to see correlation kind of in. Yes, all the now apps. Yeah. A graph format. This is a big one for me. I like the one with the rooms in the house. I mean, I can already identify that almost myself in that five days between my room and low mood. But it being in a that kind of format is just so cool. I've never seen that. And it definitely interests me and I really like the. Yeah, the personal insights. I would love too. And I like the formatting of the mood entry in your activity better than. Well, that I've never had before in an app or the one that we did for the five days.

00:07:29 Participant 1

So you said that you used reminders. Perhaps then notifications would be appreciated? Or that you would be able to set your own reminders if you do that for other things.

00:07:38 Participant 1

Yeah. I'd really like the option to be able to set a reminder to my phone at a certain time of the day, maybe at, you know, 6:00 at night after the day's been done, or before uni and everything in the morning. I think that would be good. Otherwise I just forget and I think that's a good feature of the app also maybe yeah. Being able to kind of do some reminders or like a little list section in the app of you know things to do that you need that day or things that you need to get done chore wise or just I really enjoy crossing things off lists and feeling productive actually makes me do more, so I think that might be a good add feature of this app maybe?

00:08:21 Interviewer

Definitely. And how would you feel about sharing any of this information that we were inputting? Like who would you feel comfortable sharing with and whatnot?

00:08:35 Participant 1

I prefer it to be fairly private, but I don't consider it overly sensitive, so whilst I wouldn't want to overly share with everyone, I'm not really that concerned so like I wouldn't want it like you know a Facebook. What's the ?

00:08:49 Interviewer

feed?

00:08:54 Participant 1

Yeah, your feed on your Facebook. That everyone can just go into my Facebook feed didn't see everything I've posted in the last you know, however long I've had it, I wouldn't like that because I don't really want to, but I wouldn't mind if it could be shared with friends or family. I mean, that's not actually a feature I'm really interested in, but maybe other people are, but so I wouldn't mind if it was shared with friends and family of my choosing. But I wouldn't really be asked that specifically. And that it's a feature.

00:09:30 Interviewer

Reflecting on your experience with mood tracking over the past week, do you think it offers any advantages over your previous methods of managing your schedule and emotions?

So you said that you've used other apps and that you write things down... Do you think an app such as the one that we've discussed would offer advantages?

00:09:54 Participant 1

I think the one in that card sorting activity would definitely have advantages over every app I've used like it's so interesting those personal insights and stuff like that. Those are definitely advantages. And it would, yeah, it would help me, I think, not manage my moods, but maybe make positive changes in my life that could either have an impact on my moods, and, yeah, because of those changes. So yeah.

00:10:28 Interviewer

Are there any external factors that might attribute to a positive change in your mood slash quality of sleep outside of the scope of this project that have occurred in the past week? As an example might be like a loss of a pet, a promotion at work. Anything that is beyond sleep and general patterns that could have interfered with the data?

00:10:48 Participant 1

No, no,. I mean, I've just been at uni. I've been at uni for the past two months. Ohh well years anyway.

00:10:56 Interviewer

Is it fairly standard uni or are you especially busy like you don't have any, like, is it assignment time or is it just like pretty standard for you?

00:11:06 Participant 1

I mean it is coming up to mid semester. So we are getting a little busy with assignment study, but I wouldn't say that it's really had that big of an impact on what I've put in.

00:11:14 Interviewer

Yeah. Is there anything else you'd like to share about your experience with mood tracking during the past week that we haven't covered in these questions?

00:11:23 Participant 1

No, I'm good.

00:11:24 Interviewer

Awesome. Thank you for your time and participation in this project. I will now stop the recording.

Participant 2 Initial Interview Transcript

Interviewer:

Welcome, thank you for your time today. Let me briefly tell you about the aim of this interview. We are researching the effects of disrupted sleep schedules among university students heavily engaged in extracurricular activities and exploring the potential of moon tracking technology as a supportive tool in this context. Please read the consent form and let me know if you have any questions. Is that okay if I start recording?

Participant 2:

Yes.

Interviewer:

Cool. Could you please give me some background on your university studies? Are you a full-time student? How many classes do you take?

Participant 2

So I'm a full-time student. At the moment I'm taking three units.

Interviewer:

Cool. Can you tell me a bit about your typical extracurricular commitments beyond academics? Do you work? How many hours? Do you do social activities to take up a significant portion of your time?

Participant 2:

I'm not working at the moment but I do quite a lot of physical activity which eats up quite a fair bit of my time.

Interviewer:

Cool. How much of your time per week would you estimate that commitment takes up?

Participant 2:

Somewhere between about six to ten hours.

Interviewer:

How much of your time per week would you estimate that you spend on university tasks?

Participant 2:

About five, six hours.

Interviewer:

How much sleep do you regularly get each day?

Participant 2:

Usually around somewhere between five to seven hours.

Interviewer:

Have you ever skipped sleep entirely in favour of working on these other commitments, university or otherwise? And if so, how often have you done this?

Participant 2:

Yes I have. Not very often. Maybe about two or three times.

Interviewer:

Do you regularly take stimulants such as coffee to maintain energy throughout your activities?

Participant 2:

Oh yes.

Interviewer:

Do you often take short naps during the day in replacement of a long period of sleep at night?

Participant 2

No.

Interviewer:

Cool. This next section is talking about prior experience with mood tracking. So have you had any prior experience with personal mood tracking?

Participant 2:

Not at all.

Interviewer:

Have you ever thought about tracking your mood either digitally or physically?

Participant 2:

No, not really.

Interviewer:

Cool. Can you think of a time that it moves drastically and quickly changed? And if so, what happened and what did you do to find a solution?

Participant 2:

Off the top of my head that's pretty hard to answer. I mean when playing games usually that happens but I don't really do much to mitigate it, I just let it happen.

Interviewer:

Cool. Do you know anyone who utilises mood tracking tools and if so, have you observed notable improvements in their well-being as a result?

Participant 2:

No, but I don't think we really talk about that kind of stuff with my mates.

Interviewer:

Is there anyone that you are currently comfortable sharing information about your mood with?

Participant 2:

Yeah.

Interviewer:

Cool. Have you encountered any issues or challenges while tracking your moods?

Participant 2:

Well, I haven't tracked moods so I guess no.

Interviewer:

Next set of questions. Do you often feel tired throughout the day? Do others often comment on the perception of your tiredness, circles under your eyes, look tired, etc?

Participant 2:

Yep.

Interviewer:

In your opinion, how do you think that like activities such as university classes, social interactions, work and other extracurriculars might affect your mood?

Participant 2:

I'd say it probably affected a bit negatively. It's a bit dull.

Interviewer:

Cool. Have you noticed any patterns between irregular daily activities and negative moods?

Participant 2:

Well, I mean uni lectures obviously makes me a bit bored and annoyed but aside from that, I'm not really sure.

Interviewer:

And have you found yourself more irritable than normal during periods of high intensity such as exam blocks, assignments to do, etc?

Participant 2:

Oh yeah, definitely.

Interviewer:

This section is your views on mood tracking in an organisational context. Do you think as a whole, mood tracking can be a beneficial tool in self-assessment and personal management and if so, to what extent?

Participant 2:

I think I could see it helping people.

Interviewer:

Would you be personally comfortable with having technology such as a phone application track your reported mood and sleep schedules and make health recommendations such as suggesting appropriate bedtimes and setting reminders?

Participant 2:

Yeah, that seems like a pretty good thing I'd say.

Interviewer:

Do you hold the perspective that the challenge lies not in your inherent ability to regulate your sleep schedule but rather in the time constraints imposed by juggling university work and social commitments which may leave insufficient room for adequate sleep?

Participant 2:

I'd definitely say the latter.

Interviewer:

Okay, do you believe that mood tracking tools could provide emotional support to you or others as a university student? And if so, what sort of features would you find personally Interviewer: beneficial in this context?

Participant 2:

Yeah, I definitely think it could be pretty beneficial. As for features, I'm not really sure about that side of things. Maybe just general mood tracking. Just selecting an option. How do you feel? You can let people know how they're doing on each day. Maybe adding notes of what you did on that day can give you an idea of what kind of things you might want to avoid doing. I'm not sure really.

Interviewer:

Cool. Thank you for your answers thus far. Before we move on to the card sorting activity, is there anything additional you would like to add to the general topic raised during this interview that is pertinent to your experience but not explicitly covered by any of the questions?

Participant 2:

I don't think so.

Interviewer:

Great. To conclude, I would like to get you to perform a short card sorting activity to gauge your interest in some specific features you'd like to see in a digital mood tracker. So, there are eight digital cards that you have in front of you that each denote a different potential feature in a mood tracking application, and I would like you to rank your interest in each feature from most interesting to least interesting left to right. So you can just drop and drag the boxes around and have the best on the left, worst on the right.

Participant 2:

Alright, gotcha. Okay, I definitely think mood entry would probably be one of the most beneficial things. I think calendar tracking would also fit into that. I'm not entirely sure how to select and drag stuff. Oh, there we go. Yeah. So I think that would be on the same level as a mood entry. I think that interests me the most. Personal insights and Sleep entry also I believe can fit around here. What exactly is journaling?

Interviewer:

Let me read this. This is making personal notes like a journal of like, this is happening right now. Let me write a little note about it. I'm currently doing this, and I'm feeling like this. Let me note down this specific activities making me feel this way.

Participant 2:

Yeah, I believe that's one of the things I was talking about. So definitely that. Cool. And mindfulness exercise, if that's if I'm reading that correctly, would that be like just exercise like giving you exercises to do to.

Interviewer:

Yeah, like meditation and mindfulness and that kind of thing.

Participant 2:

Okay. And is data sharing just straight up like sharing data with like a company or something like that.

Interviewer:

This is like if you're talking to a therapist and you want to send them a collection of what you like your recorded data for the past period of time, you can do this.

Participant 2:

Gotcha, gotcha. That also seems pretty useful, but I do not find it as interesting as the other things.

Interviewer:

Cool. Are you happy to rank these as three categories of all these being essentially equal?

Or would you prefer to do it in a like, like you have any strong preferences among these columns you've made? Like this is better than that.

Participant 2:

I think the columns, I'll keep those like everything in each column is equal in equal interest of everything in the same column.

Interviewer:

Okay, that's a fine way to do it. Thank you for doing that. And now there if you look at the cards within each individual feature, it shows alternative user interface options for that feature.

Could you please indicate a preference of design ranking from the from the most appealing at the top to the least appealing at the bottom? Some of these only have one interface so ignore those ones.

Participant 2:

Okay, gotcha. So, I think for mood entry. I think the top, that would be kind of annoying to work with. I think this one is the most simple and gets the point across the most.

I think this one also be good. That one's quite simple. And I assume this one is like different kinds of moods. So how do you feel?

Interviewer:

Yeah, it's like a slide, like I feel between that and that.

Participant 2:

Yeah, I feel like that one might be a bit too complex or annoying for some people to think of. I think these ones on the top are the most simple and to the point.

Right now calendar tracking. I think, I can't quite see. Oh, is that just like the mood on the day? Yes. Okay, gotcha. I think that's a lot simpler than this. This is a lot of, because is this a mobile app? I think that's too much information to cram onto a phone screen.

Interviewer:

Top to bottom, if you don't mind.

Participant 2:

Oh, yeah. There we go.

Thank you. All right. Personal insights. I actually like that bigger one. I think that is a good layout for this. I think it's good to have that, because that looks like its own separate full page. It's dedicated. I think that's good. Sleep entry. So this one, the bottom one is like actual times. Yes. I definitely think that's a lot better than this slider. Cool. And journaling. So this one's just like things that happen. So like all the weather and all this. What's this one? How does this one work?

Interviewer:

Today I make a comment. I'm doing this. I'm feeling this way. I'm feeling good. Here's what I was doing. It's like a little personal notebook.

Participant 2:

Okay. I feel this one's weird to rank, because I feel both of them are good.

I feel like these should both be in it, because this one's good, because it has preset options that can allow the app to like, I don't know if you're like doing tracking and stuff like that. This would make that part of it a lot easier, but the bottom one is really good for self-reflection.

Interviewer:

Cool. I'm happy if you want to rank these both on the same level.

Participant 2:

Yeah. That's good. Definitely the same level. Okay. Okay. So data analysis.

I really am not fully sure what's going on with this one. Is that like a map of the house?

Interviewer:

Yes, this one isn't very clear. This is meant to help a user understand a correlation between physical location and mood. So it's like, here is where you were when you reported this mood, and it creates a map of, here's the places where I feel this way. Here's the place that I feel this way. It's like, I get stressed when I'm at my work. Oh, I can see that on the map.

Participant 2:

Okay, gotcha. I think this one is interesting in theory, but I'm not so sure if it works too well, especially as like a data analysis thing. I do think this one probably will give the best information, but for general users might not be the best. I still think I'd like it the most. This one is just a lot more concise. And yeah, those last two will leave the way they are. Yeah, those two are just ones.

Interviewer:

Great. Now, thank you for doing that once again. Now on the left side of the screen, there is one more activity. So this is just looking at a colour palette and set of essentially systems for the design. You can pick from one of the predefined colour schemas. So on the left here, again, rank these top to bottom of your preference, which one you think would be like the best colour palette for a mood tracking app.

Participant 2:

Okay, so I definitely think that one is the most clear.

Interviewer:

Also, if you have a different option of what you actually like, that's after this, you can finish this first.

Participant 2:

Yeah, I think we'll keep these. These bottom two don't have good contrast with the sad face.

Interviewer:

Cool. And at the top here, you have these rows. We use these in the app quite a lot. So which of these top to bottom do you think is the best the best selection of colors?

Because people associate color with mood a lot. Which of these feels best to you? If you have other opinions, you can use the faces on the color wheel to put them where you think they should be.

Participant 2:

Okay, I think this one's definitely the most conventional. Reminds me of like those fire hazard warning things. I think that makes a lot more sense. That's for these other ones. Not so sure how I feel about the bottom one.

I think I'll keep that there. Having to have a different color on that's a bit strange. I think I'll keep these equal because they kind of feel the same in concept. Yeah, I think that's how I'm going to keep that ranking.

Interviewer:

Okay, and now we have that section done. I'm just going to go over some questions about your choices. So what made you want mood entry and calendar tracking to be your preferred choices in a mood tracking app?

What really appeals to you about calendar tracking and mood entry over the other options?

Participant 2:

I feel like that's pretty much the most basic kind of thing you would need for this kind of app. As a mood tracking app, you want to be able to enter what kind of mood you have. And when you have those kinds of moods, I think that's just like the default features that you would want.

Interviewer:

Cool. What made you want to see data sharing as your least preferred option in the tracker?

Participant 2:

I feel like that one's a lot more specific to certain people. It's not really a general use case feature.

Interviewer:

Cool. And last question. For each of the options where you indicated a design preference, so for mood entry, personal insights, data, sleep, journaling and calendar tracking, could you just briefly summarize what you'd like most about your preferred option for each of those?

Participant 2:

Okay, yeah. So for mood entry, that one is the most simple and concise and should be a lot easier for tracking. For example, like that second one, while it's pretty much the same thing, it has intermediate options, which would probably make showing that kind of data a lot harder. Calendar tracking, I think that one just has the least amount of visual information on it, which is good for a phone app.

The bottom one is a bit too cluttered, in my opinion. For the personal insights, I think that top one shows the most information whilst also being quite clear. For sleep entry, I think it's good to be able to put in a more exact time, even if it isn't as simple as a slider. For journaling, those ones are put equally because I thought both were good and I would want both of them in at the same time instead of having just one over the other.

But for this one, the left one, that one is very simple and just has preset things that you can input, and the other one you're allowed to input your own stuff. And for the data analysis, I

personally want the data analysis part of it to give you the most information, and I feel like that one does give the most information, the top one.

And yeah, the others are what they are.

Interviewer:

Great, thank you for your input, and thank you for your time and participation in this project. I will now stop the recording, unless you have any additional comments to make.

Participant 2:

Nope, nothing comes to mind.

Interviewer: Great, thank you for your participation.

Participant 2 Follow Up Interview Transcript

Interviewer:

Welcome back Participant 2. Let me thank you once again for both your time today and participation thus far. Let me briefly tell you about the aim of this follow-up interview. Based on your previous interview in the mood tracking diary you've been keeping over the last five days, the goal of this interview is to determine any measurable change in your quality of sleep and an overall mood that can be attributed to this project. Please do not feel as if you are required to answer in the positive or negative, we would greatly prefer attractive answers to favourable outcomes. This interview will also be considerably shorter than the first as we have less ground to cover regarding your background and are simply attempting to measure any changes or patterns.

Is that okay if I record this interview?

Participant 2:

Yeah, no worries.

Interviewer:

Cool, so first question, since our last interview have you consistently tracked your mood and sleep patterns using the mood tracking tool we discussed?

Participant 2:

Yes.

Interviewer:

Cool, did you use any specific strategies or reminders to help you stay consistent with the mood tracking?

Participant 2:

Not at all.

Interviewer:

Cool, have you noticed any patterns or trends in your mood fluctuations over the past week that you might attribute to certain activities or sleep patterns?

Participant 2:

Well, on days where I had a lot of uni work I was a lot more tired. Aside from that, not really, anything else.

Interviewer:

Cool, did you encounter any surprising realisations about how your activities and sleep impacted your mood?

Participant 2:

Not really.

Interviewer:

Have you observed any correlation between the quality and quantity of your sleep and your mood throughout the week?

Participant 2:

No, not really.

Interviewer:

Okay, were there any instances where reviewing your mood patterns prompted you to make specific changes in your routine habits?

Participant 2: Nope.

Interviewer:

Did you face any challenges or setbacks in maintaining consistent sleep patterns or tracking your mood?

Participant 2:

I did forget to track my mood once, and then I had to follow it up the next day, so there's that.

Interviewer:

On a subjective level, do you feel that keeping your mood tracking diary has had any positive effects on your emotional wellbeing?

Participant 2:

Personally, no.

Interviewer:

Okay, looking ahead, do you plan to continue using the mood tracking tool to monitor your mood and sleep patterns?

Participant 2:

Probably not. I just don't feel like it helps me at all. I don't know.

Interviewer:

Fair enough. Are there any adjustments you would suggest to improve the effectiveness or user-friendliness of the mood tracking technology, such as other information you would like to capture?

Participant 2:

One thing was the question asking how you feel. I feel like it's so open-ended. For me, for some reason, I've had a lot of trouble trying to think, how do I feel? What should I write? I feel like having a bunch of predefined options would make that a lot easier.

Interviewer:

Okay. How would you feel about sharing this information, and who would you be comfortable for it to be shared with?

Participant 2:

What exactly do you mean by that?

Interviewer:

The mood tracking data you've been doing every day.

Participant 2:

Oh, I mean, to anyone that needs it for this sort of project, but aside from that, I'd like to keep it private.

Interviewer:

Reflecting on your experience with mood tracking over the past week, do you think it offers any advantages over your previous methods of managing your schedule and emotions?

Participant 2:

For me, not at all.

Interviewer:

Okay. Are there any external factors you might attribute to a perceived change in the mood or quality of your sleep outside the scope of this project that have occurred in the past week? An example might be the loss of a pet, promotion at work, etc.

Participant 2:

No.

Interviewer: Okay. Is there anything else you'd like to share, very experienced with mood tracking during the past week that we haven't covered in these questions?

Participant 2:

I don't think so.

Interviewer:

Thank you for your time, I will now stop the recording.

Participant 3

Interviewer

Welcome. Thank you for your time today. Let me briefly tell you about the aim of this interview. We are researching the effects of disrupted sleep schedules among university students heavily engaged in extracurricular activities, exploring the potential mood tracking technology as a supportive tool in this context. Please read the consent form and let me know if you have any questions. Believe you've already done that. Is it OK if I start recording?

Participant 3

Yes.

Interviewer

Alright. Could you please give me some background on your university studies? So are you a full time student? And how many classes do you take?

Participant 3

I have a full time student studying a Bachelor of Advanced Science and I take 4 units so I have like classes pretty much every day of the week. So.

Interviewer

Can you tell me a bit about your typical extracurricular commitments beyond academics? Like, do you work and how many hours do you work if you do? And also, will you tell me a bit more about any of your usual social activities that you have?

Participant 3

So I do have a casual job as a gymnastics coach, so that's around 10 to 12 hours. A week and I do do gymnastics myself outside of that, but that's only like a few hours a week as well. Typically, if I was, if I'm going to engage with friends, that's more of like a weekend activity just because of busy schedule with university during the week. So social probably doesn't take up too much of my time, but yeah, I guess I'm not the most interesting for extracurriculars.

Interviewer

If you had to estimate sort of a rough idea of how many hours you spend per week on those activities, how much would you say outside of uni?

Participant 3

At most 15 to 20, if you're including work.

Interviewer

OK. And how much of your time do you per week do you reckon you spend on the university time per university tasks?

Participant 3

Probably 20 to 30 hours at most.

Interviewer

And how much sleep do you regularly get each day? If you if you know roughly how many hours you get?

Participant 3

I try to aim for eight hours each day, and I think I get that? So yeah.

Interviewer

OK. And have you ever skipped sleep entirely in favour of working on other commitments? University or for other social or work commitments? And if so, how often have you done this?

Participant 3

Personally, I haven't because I'm big on sleep, but like so, yeah.

Interviewer

Do you regularly take stimulants such as coffee or another energy drink or something like that, and to maintain your energy throughout your activities?

Participant 3

I don't drink coffee. I drink tea every so often, which has some level of caffeine. But no, I don't drink energy drinks or anything like that.

Interviewer

Do you often take short naps during the day in replacement of a long period of sleep?

Participant 3

Ohh no, not very often, no.

Interviewer

Mostly just going to sleep?

Participant 3

Yeah.

Interviewer

All right. So we're going to move on to the second topic about prior experiences with mood tracking. Have you had any prior experience with mood tracking?

Participant 3

Ohh not really. Like it's definitely not with apps or anything like that so.

Interviewer

Like journaling or anything like that.

Participant 3

Ohh no, definitely not, yeah.

Interviewer

Have you ever thought about tracking your mood, either digitally or physically?

Participant 3

No.

Interviewer

OK. Can you think of a time that your mood was drastically and quickly changed? If you can, what happened and what did you do to find a solution? It can be sort of anything that you can think of.

Participant 3

Yeah. I guess just any sort of situation where it's like someone being confrontational like and that causing you know, anger or whatever. And I guess that the best thing I have to do with that is just if it's a public space obviously remembering you don't want to lash out or anything like that, so you know, just remembering to be aware of other people and things like that and you know, managing your emotions yourself and reminding yourself that you can take out however you need to take out your anger at a later time and you know managing it like that, as opposed to just instantly acting.

Speaker

OK.

Interviewer

Do you know anyone who utilises mood tracking tools? And if you do, have you observed any notable improvements in their well-being as a result?

Participant 3

I don't think I know anyone that uses them, No.

Interviewer

Have you ever, like you say you don't currently know anyone, but have you ever known of someone that has done mood tracking?

Participant 3

I've seen things online about people doing it like people on social media and stuff, but I haven't known anyone personally.

Interviewer

Is there anyone that you're currently comfortable sharing information about your mood with?

Participant 3

I mean, I talk about like mood and stuff all the time with people, but like, I don't do it in a clinical sort of way it would just be casual, so.

Interviewer

Have you encountered any issues or challenges while tracking your moods? I guess the better question would be have you encountered any issues or challenges while talking about your moods or thinking about your moods or anything like that?

Participant 3

I guess I don't struggle with this as much, but I guess when I was younger, like struggling to I guess know what you're feeling as, like, you know, are you really angry or is it more just that you're frustrated like you know, that kind of thing. Which I think probably a lot of people struggle with but, that's probably

the main thing just knowing how to exactly categorise it as opp- I don't really struggle with saying it. I don't really feel ashamed of saying whatever I'm feeling, so.

Interviewer

OK. So we're going to move on to topic three. So, perceived impact of a disrupted sleep schedule (when you do get them). Do you often feel tired throughout the day?

Participant 3

Sometimes, yeah.

Interviewer

OK. And do others often comment on the perception of your tiredness? Like circles on your eyes, looking tired, that kind of thing.

Participant 3

Ohh no no, I don't get that.

Interviewer

In your opinion, how do you think daily activities such as university classes, social interactions, work and extracurricular activities might affect your mood?

Participant 3

Like how much does it affect my mood?

Interviewer

Well just, yeah, I mean, realistically, do you think that those activities affect your mood at all? Like, is there anything that affects it more than anything else? Or is it just like a net-neutral in your words?

Participant 3

Oh, I think every sort of activity affects my mood. I think it could affect well, not negatively or positively necessarily, but it can be neutral, but obviously things I enjoy doing is going to affect my mood more positively, obviously things I don't want to do is gonna affect me more negatively, but I guess the more negative side of things of uni would just be obviously stressed about assignments or anything like that, but generally university is generally a positive experience because I enjoy learning it like everything but I'd say most things have a quite neutral approach but they can I guess toe the line between positive and negative.

Interviewer

OK. Have you noticed any patterns between irregular daily activities and negative moods?

Participant 3

Irregular?

Interviewer

Irregular.

Participant 3

Ohh OK. I mean I personally really like a schedule like in a routine, so I would get upset and have like bad moods or upset moods if my schedule is irregular as opposed to regular. So I mean I guess yeah, like if my if it's irregular, I don't like that and I would have worse moods, yeah.

Interviewer

Have you found yourself more irritable than normal during periods of high intensity? So like an exam block or something to do with that kind of thing?

Participant 3

I don't know about irritable, but I guess more just overwhelmed. Like, yeah.

Interviewer

OK. We'll move on to topic 4. So it's views on mood tracking, in an organizational context. So do you think as a whole mood tracking can be a beneficial tool in self-assessment and personal management? And if you do, to what extent?

Participant 3

I think it can be, but only in my opinion only when it's used in conjunction with other things like, you know, speaking to like a counselor or a therapist or, or at least just some sort of other professional that can help you with it. Unless you're just doing this out of interest to see like, you know what things impact you personally, just because I think it gives you information, but then you don't really know what to do with that information, so I think it was to what extent, what was the second part?

Interviewer

So to what extent if you do think it's beneficial.

Participant 3

I think it's if you're using it in a way that in conjunction with other things, I think it could be quite beneficial like, but I think just on its own, if you don't really understand how to analyse that like it's probably not super beneficial.

Interviewer

Would you be personally comfortable having technology such as your phone or an app on your phone track your reported mood and sleep schedule and make health recommendations such as suggesting appropriate bed times or setting reminders?

Participant 3

No, and not because I'm worried about like data. You know, taking my data in that regard more just because I prefer to think about that myself than have, like, my phone telling me that like and I would

prefer to work with that with other humans as opposed to, like, relying on a device for that with myself. But obviously other people will probably have their own things on that.

Interviewer

Do you hold the perspective that the challenge lies not in your inherent inability to regulate your sleep schedule, but rather in the time constraints imposed by juggling university, work, social commitments, which may leave insufficient room for adequate sleep. So if you ever feel like you're getting inadequate sleep, do you think it's due to time constraints pretty much, to sum up that question?

Participant 3

I think it's for me, it's more due to like mood issues like more like anxiety and things like that which could be due to like you know because there's time constraints with assignments and things like that. But I think it's more of a mood issue as opposed to like time constraints and things like that.

Interviewer

And do you believe that mood tracking tools could provide emotional support to you or others? As a university student? And if you do, what sort of features would you find personally beneficial if you were to use it?

Participant 3

I guess I don't know enough about what the tracking app does, because if it's literally just to track your mood, I personally don't see how that benefits you because it doesn't give you any tools to help you like know what to do then, when you're feeling a particular way. So I don't really think it would benefit me very well, but I think for some people who struggle to really just know what they're feeling, that would probably be a good first step in order to, you know, understand what they can do to help themselves so.

Interviewer

Alright, *cough* pardon me. Thank you for your answers so far. Before we move on to the cards sorting activity, is there anything additional that you'd like to add to the general topic raised during the interview? So the perceived impact on sleep schedule around mood tracking, have you had any private experiences that you'd like to share?

Participant 3

Ahh, I don't think so, no.

Interviewer

OK, cool. So to conclude, I'd like to get you to perform a short card sorting activity to gauge your interest in some specific features you'd like to see in a digital mood tracker. There are 8 digital cards here that each denote a different potential feature in a mood tracking application, and I would like you to rank your interest in each feature from most interesting left to least interesting on the right. So obviously you can play around with it as you'd like, a bit less room on the screen than I would potentially prefer myself. You can zoom in and see that the stuff like that, so there's a few different

categories. I'll just read them off. We've got mood entry, personal insights, data analysis, calendar tracking, journaling, data sharing, sleep entry and mindfulness exercises. So quite a few different options. So yeah, again, most interested on the left and at least interested on the right, so you can just drag and click wherever you'd like.

Participant 3

All right.

TECHNICAL ISSUES WITH CARD SORTING, pivoted from moving cards around on-screen to numbering above each card in order of preference

Interviewer

Yeah, I think just put a text box above each one for for what 1 to 8 of what you'd like.

Participant 3

There's eight, right?

Interviewer

Yes.

Interviewer

OK. So is it 1 the most interesting, and at the least interesting or the other one?

Participant 3

Yes.

Interviewer

OK, cool. Sweet. So now that you've ranked them based on what you think would be most interesting, in each category, there's multiple different screenshots and mockups of a potential app layout or app feature in a digital mood tracker. So now I'd like you and it should work this time. You should be able to click each individual image, but I'd like you to move around in each box. With just different alternative user interface options, so the most appealing will be at the top and the least appealing at the bottom, so you can do it in any order you'd like and just go for it.

Participant 3

There's only one option. Do I not move it?

Interviewer

If there's, there should be at least more than one. There is one option for that one just just leave that one, yeah.

Participant 3

Yeah. OK.

Interviewer

Yeah, not a touch screen. Unfortunately. No, no.

Participant 3

In the not.

Interviewer

So you can zoom it if. You'd like it might.

Participant 3

Yeah. How do you?

Interviewer

Make it a little bit easier to see.

Participant 3

I guess one as well.

Interviewer

Yes, some of them only have one. So cool. So and you framed them, as I said before, just top is most appealing and one of his least appealing.

Participant 3

Yeah, yeah.

Interviewer

Cool. Perfect. Alright so let me have a look here. So you've got listed as your most important as number one is mindfulness exercises. What makes you want to see mindfulness exercises the most in a digital mood tracker?

Participant 3

Because like, I was kind of saying before, I think while mood like analyzing is good, if you don't actually have strategies to be able to, then like use from that, it's kind of pointless. So having an app that actually suggests some sort of mindfulness things in there is also like a good feature to have.

Interviewer

Cool. And so you've rated data sharing the least interesting to you in a digital mood tracker. So what makes you want to see data sharing the least in a digital mood tracker?

Participant 3

For starters, I didn't completely understand what it was and also cause it doesn't sound very important.

Interviewer

Yeah. So it's it's mostly just the the ability to export your mood data to like a health professional family member, that kind of thing or like e-mail and stuff like that. Does your opinion on that change?

Participant 3

Not really. I mean cause you can just tell that you don't really need to have a whole thing like a fancy thing for in my opinion. So yeah.

Interviewer

Alright, So what stood out to you about this design? So I'll go through each one compared to all the other ones. So the first off on mood entry here, so you've got this design here. What made that stand out?

Participant 3

To you? Ohh well, I'm a big fan of gradients so but also because it has like the colour kind of coordination. Also like the like the little smily face things next to it. So it has like kind of both. So I like that because it categorises it better.

Interviewer

Cool. And for personal insights, what made you choose this one over the other option there.

Participant 3

It just has a little more detail in that and the other one didn't seem to be as detailed. So yeah.

Interviewer

OK, cool. And for data analysis you've got this one here. What made you choose that one there?

Participant 3

Well, I do science. So physical pie charts and things make a lot more sense to me than whatever the other stuff was. So.

Interviewer

And for calendar, we'll make you choose that design over this one here?

Participant 3

Because the other one was a little too simple for my liking, that one had just a little bit more to it. So.

Interviewer

OK, cool. And for journalling?

Participant 3

I mean, I I'm not a massive fan of journaling, so keeping it more simple in that regard is more my taste. So yeah.

Interviewer

And for sleep entry.

Participant 3

Yeah, I mean, I didn't. There's only really two options and I feel like I just like the little moon in that one, so. To be honest, so.

Interviewer

And for the mindfulness exercises, there is only one, so that is complete. Thank you for your input on that. That's really helpful. So that pretty much wraps it up. Thank you for your time and participation in the project. I'll now stop the recording.

Participant 3

Alright, thank you.

Follow Up Interview Transcript

Audio file

[Follow Up Interview.m4a](#)

Transcript

00:00:02 Speaker 1

Welcome back. Let me thank you once again for both your time today and participation thus far. Let me briefly tell you about the aim of this follow up interview. So based on your previous interview and the mood tracking diary you have been keeping over the last five days, the goal of this interview is to determine any measurable change in your quality of sleep and overall mood that can be attributed to the project. Do not feel as if you are required to answer in the positive or negative, we just want objective answers to favourable outcomes.

00:00:28 Speaker 1

This interview will also be considerably shorter, so we have less ground to cover regarding your background and we're just simply attempting to measure any changes or patterns. Is it OK if we start?

00:00:38 Speaker 2

Yep.

00:00:39 Speaker 1

Cool. So since our last interview, have you been consistently tracking your mood and sleep patterns using the mood tracking tool that we discussed?

00:00:45 Speaker 2

Yeah.

00:00:48 Speaker 1

OK. And did you use any specific strategies or reminders that helped you stay consistent with using the mood tracking diary?

00:00:54 Speaker 2

Ohh not really, I just tried to remember as best as I could each day.

00:01:00 Speaker 1

Have you noticed any patterns or trends in your mood fluctuations over the past week that you might attribute to different activities you may have done or certain sleep patterns?

00:01:08 Speaker 2

I mean, I was on a field trip, so it was obviously some of my mood was impacted by that mainly just being more tired than usual. But I think if I wasn't on that I don't really think it would have had too much of a fluctuation.

00:01:23 Speaker 1

OK. Did you encounter any surprising realisations about how your activities and sleep impacted your mood over the last 5 days?

00:01:30 Speaker 2

No.

00:01:31 Speaker 1

OK. Have you observed any correlation between the quality or quantity of your sleep and your overall mood throughout the week?

00:01:38 Speaker 2

I mean, I still got pretty good sleep, so I mean, but like in general, obviously if I get less good sleep, it will be less like happy throughout the day. Like that's yeah.

00:01:51 Speaker 1

OK. Were there any instances where reviewing your mood patterns prompted you to make specific changes in your routine, or any habits?

00:01:56 Speaker 2

No.

00:01:59 Speaker 1

OK. Did you face any challenges or setbacks in maintaining consistent sleep patterns or tracking your mood? And if you did have any of these challenges, how did you overcome them?

00:02:08 Speaker 2

Well, I didn't have reception, so I don't know if that's really a challenge, but other than that, that was really, I guess the main thing. And just, I guess, remembering to do it because I don't normally do that kind of thing, so.

00:02:20 Speaker 1

OK.

00:02:22 Speaker 1

On a subjective level, do you feel that keeping a mood tracking diary has had any positive effects or any effects rather on your emotional wellbeing?

00:02:30 Speaker 2

No.

00:02:32 Speaker 1

Ok. Looking ahead, do you plan to continue using the mood tracking tool to monitor your mood and sleep patterns? Why or why not?

00:02:40 Speaker 2

I wouldn't, because I think it makes no difference to me because like I said, in that other interview like unless you're actually using strategies with it, there's kind of no point in doing it because it's just giving you data with no purpose, so at least that's how I feel about it.

00:02:56 Speaker 1

Ok. Are there any adjustments you would suggest to improve the effectiveness or user friendliness of the mood tracking technology such as other information you would like to capture for example?

00:03:06 Speaker 2

I mean, yeah, I feel like it's a bit, I think I guess mood is a bit of a weird term, I guess. Maybe classifying it more as like emotions or I guess like general feelings throughout the day. Maybe even if you wanted to be more specific and breaking it down to like morning, noon night or whatever. Like, if you really wanted to be that specific for tracking it would be the only suggestion I could really think of, so.

00:03:35 Speaker 1

OK. How would you feel about sharing this information and who would you feel comfortable for it to be shared with?

00:03:41 Speaker 2

I mean, I don't care. It's not super personal to tell people what mood, because generally people could interpret other people's moods anyway, so.

00:03:52 Speaker 1

OK, reflecting on your experience with mood tracking over the past week, do you think it offers any advantages over your previous methods of managing your schedule and emotions?

00:04:00 Speaker 2

No.

00:04:02 Speaker 1

OK.

00:04:03 Speaker 1

Can you maybe elaborate a little bit why on that?

00:04:05 Speaker 2

I kind of didn't hear the question completely.

00:04:08 Speaker 1

Reflecting on your experience with mood tracking over the past week, do you think it offers any advantages or any differences over your previous methods of managing your schedule and your emotions?

00:04:18 Speaker 2

Ohh well, definitely not managing schedule like cause I mean in terms of, I assume that's to do with like sleep habits or whatever but like in in terms of sleep habits, I don't really think of mood tracking app going to help you in terms of that, like time management in general would be better in terms of actually tracking out what you have to do each week is better and that in my opinion that would help your mood too, because if you're more on top of things, you're going to feel more in control and less overwhelmed. So like, I don't really think a mood tracking app unless it would also have like an actual calendar with it and is allowing you to track that kind of stuff too would really be beneficial in that sort of regard.

00:04:58 Speaker 1

OK.

00:05:00 Speaker 1

Are there any external factors you might attribute to a perceived change in your mood or quality of sleep outside of the scope of the project that have occurred in the past week, and we've kind of covered this before but yeah.

00:05:07 Speaker 2

Oh yeah, I said I was on a field trip.

00:05:11 Speaker 1

Is there anything else you would like to share about your experience with the mood tracking that you haven't said so far during the past week that we haven't covered.

00:05:18 Speaker 1

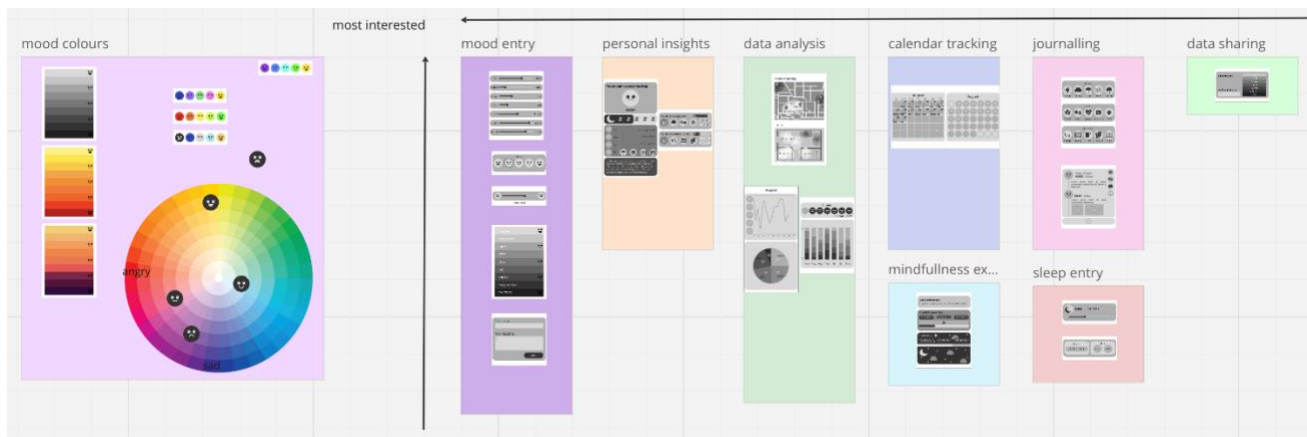
OK.

00:05:19 Speaker 1

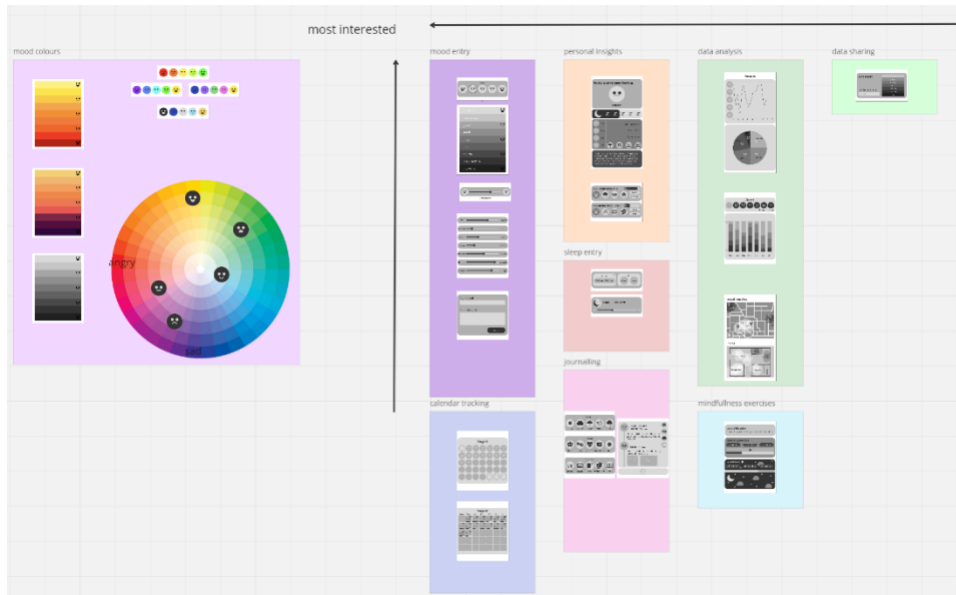
Thank you for your time and participation in the project. I will now stop recording.

Completed Card Sorting

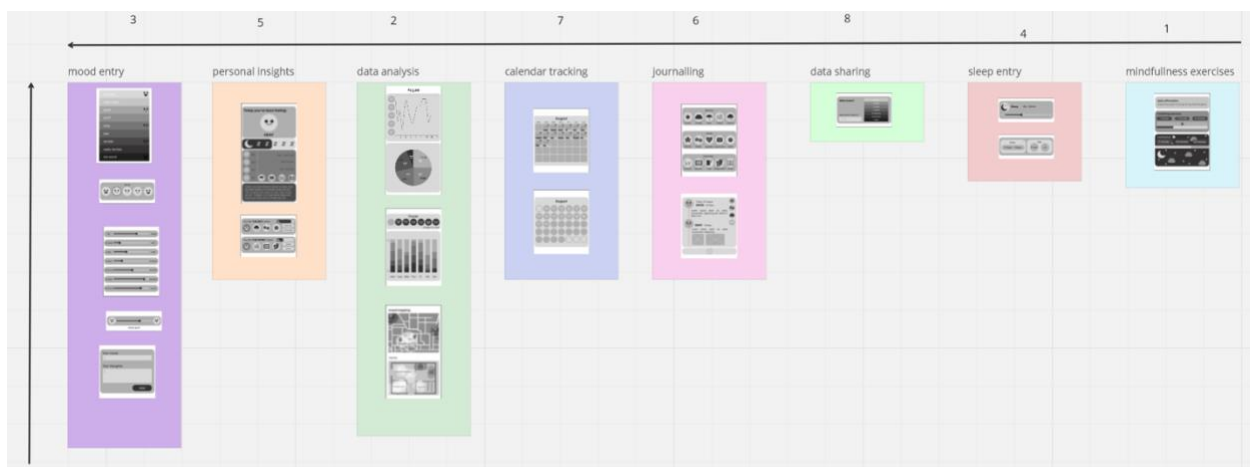
Participant 1:



Participant 2:



Participant 3:



Mood Tracking Diary Results											
ID	How are you feeling currently?	On a scale of 1-5, rank your mood	Where are you right now?	What activities did you do today?	How many hours of sleep did you get last night?	Did you take a nap today?	Are you feeling tired or worn out?	On a scale of 1-5, how busy were you today?	Have you used technology today?	if yes, what type did you use?	Further, for what purpose was this technology used for?
1	Tired	2	My bedroom	study; Reading a book;	8 hours	No	Yes	2	Yes	phone; laptop; tv;	University; Social activities; Entertainment;
2	Anxious	2	My bedroom	social meeting;	5 hours	No	Yes	1	Yes	phone; laptop; tv;	Social activities; Entertainment;
3	Happy	4	Lounge room	study; work;	8 hours	No	No	4	Yes	phone; laptop; tv;	University; Work; Social activities; Entertainment;
4	Worried	3	In my bedroom	study; class; work;	5 hours	No	Yes	4	Yes	phone; laptop; tablet;	University; Work; Entertainment;
5	Stressed	3	At the university library	study; class;	6 hours	No	Yes	5	Yes	phone; laptop; tv;	University; Entertainment;
6	Indifferent	3	Home	study; class;	6 hours	No	Yes	2	Yes	phone; PC;	University; Gaming; Entertainment;
7	Alert	4	Home	study; class; social meeting;	7 hours	No	No	4	Yes	phone; laptop; PC;	University; Social activities; Gaming; Entertainment;
8	Tired	3	Home	study; social meeting; Bouldering;	7 hours	No	Yes	4	Yes	phone; PC;	University; Social activities; Entertainment;
9	Tired	1	Home	study;	6 hours	No	Yes	5	Yes	PC;	University;
10	Tired	3	Home	study; class; social meeting;	6 hours	No	Yes	5	Yes	phone; PC;	University; Entertainment;

11	Tired	3	Home	study;	8 hours	Yes	Yes	2	Yes	phone; laptop;	University; Entertainment;
12	Okay	4	Home	work;	8 hours	No	Yes	4	Yes	phone;	Entertainment;
13	Good	5	Home	study; class;	8 hours	No	No	4	Yes	phone; laptop;	University; Entertainment;
14	Tired	2	On the train	Study; class;	8 hours	No	Yes	4	Yes	phone; laptop;	University;
15	Okay	4	Home	study;	8 hours	No	No	3	No	phone; laptop;	University; Entertainment;

