**Usability test Plan**

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**Objective**

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| To determine design inconsistencies and usability problems to assist the creation in a usable interface, alongside a viable concept. The aim is to allow the participants to ‘break’ the design thoroughly, in order to assist the group to make more efficient iterations, due to reduced time. We aim to meet this objective by having a broad but intrusive matrix to determine success and failure, a list of tasks that vary in difficulty, likewise the incorporation of external factors such as alcohol and the environment itself. |

**Current description of the system**

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| The com-it has two UI’s the wearable and the application. The application is in charge of transferring the commitment level to the com-it (it transfers money, that the user can Wipeout over the night). The wearable acts like both a watch – showing income lost, and a commitment card, that they have to use in order to play the machine. They cant overdraw the limit, so what they get is all they have for the night. The application can monitor all the activity the wearable does, allowing family to be increasingly aware, outside of the environment itself. There is also a text function that allows the family to directly send a pop-up message onto the wearable UI. The wearable displays income lost, through a bar graph, once the user has exceeded more than halfway the wearable will vibrate in intervals of 15 mins, acting as a sensory reminding – almost like an alarm to get them home. Once the wearable is out of money, the only way they can top it up, is if they are with close distance to the application, as it worth of Bluetooth. This forces the user out of the room, this can cause potential anger, so a built in mindfulness function activates as soon as the limit is up, the IWatch can detect heart rate, if they users heart rate is rising in anger, the watch will give breathing methods, to attempt to calm them down – mindfulness. Once the user is in reach of the application, and if they want more money, the transaction locks for 24 hours, forcing them to find something else to do while they wait. The system doesn’t stop the user from gambling, it stops them from excessively spending, halting problematic behaviour. Though, if the loved one wants to reduce the commitment level over time, the application allows the reduction of com-it level, meaning. If the loved one sets the commit level to only be $100, in 2 weeks, on that week, if they try and transfer more, the com-it won’t allow it – all of this can be changed in settings. |

**Methodology**

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| **Usability testing (think aloud**) – based of template. Aim: to test the effectiveness of the UI and the concept.  **Usability alternative test** – Context testing – general usability testing but within the gambling room itself. Aim: to investigate the effectiveness of the product in the space it is intended for. Whether or not contextual factors inhibit the product.  **Usability alternative test** – Intoxication testing – general usability testing but under the influence of alcohol. Aim: To investigate to co-morbidity issue alongside gambling, to determine if the product is actually viable in the sense of it being usable in a bar. As most individuals who gamble, drink while doing so.  **Usability alternative test** – Stakeholder testing – general usability test but with key stakeholders e.g. venue owners and phycologists. Aim: To determine the viability of the concept alongside the context it is within, to investigate whether or not stakeholders would invest in this solution.  **Surveying** – Post-test survey. Aim: to investigate the viability of the concept against our criteria, and against user needs and wants.  **Heuristics** – Heuristic evaluation. Aim: to determine if the application meets the standards of professionals within the field. |

**Basic timeline of methods**

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| **First LARGE test:**  General user testing.  Surveying  Heuristic testing:  **Iteration**  **Second LARGE test:**  General user testing   * Normal think aloud * Intoxication Test * Context test   Surveying  General tests  Heuristic tests  Potential stakeholder testing (General usability testing or just the survey section with individuals interviewed from the beginning – a call back) |

**Participants**

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| **General testing:**  Clarissa –Used for general testing and volunteered for intoxication testing – Casual gambler  David – General usability testing - Casual gambler  Tim - used for general testing and volunteered for intoxication testing - Casual gambler  Georgia or Adrian (or both) – General usability testing can also do context testing. - Casual gambler  Riana – Only used for final general usability testing. – Problematic gambler who co-inspired the idea  (Wait for their names)  4 – Harrison  4 – Miguel  **Heuristic Participants:**  Benji - Tutor  Nathan - Tutor  Jade, Matteo, Sarah. – UX students  Big MAYBE to Hamish  **Protentional stakeholder testing:**  Jackie – Venue owner (Usability testing) –co- inspired the idea  Phycologist (Harrison) |

**Procedure**

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| **Tasks**  stuff I need help with.  ***The application:***  1 - **Abstract task:**  Transfer money  **Low level:**  Set up Bluetooth  Sign in/create account  **High level**  Transfer money to the com-it.  **2 - Abstract task**  Monitor com-it is spending  **Low level:**  From the visual representation View com-it activity.  **High-level:**  Send a com-it text.  Reduce the limit of the com-it over time.  **3 - Abstract task:**  Transfer money (after already transferring).  **Low level:**  Transfer lock – how long until the lock is unlocked?  ***The wearable***  **1-Abstract task**  Get cash out.  **Low level**  Connect to application.  From the visual representation how much do you have too spend?  **High level**  Find/use cash feature.  **2-Abstract task:**  Monitor spending  **Low level**  Watch the bar – from the visual representation how much money do you have left to spend.  Spend more money  **High level**  The com-it has run out of money what next?  Attempt to manipulate the com-it. (or manipulate the user on the application). |
| **Research Environment**  The research environment is critical, a separate final test will be implemented within the environment of the gambling room itself, to determine whether or not the final iteration can be implemented along side the environmental factors (bright lights, loud music, incentivise). To save time, and to be more efficient, prior tests will be conducted outside the environment, as the UI is still under development, as performance and preference of the application itself is key, before external environmental factors can truly determine concept viability*.* |
| **Preparation**  Pre established templates, printed. Pens. Cameras. The prototypes. |
| **Data collection**  Data will be collected through template filling and audio and visual recordings. To ensure all data is collected, and no information is lost, the testing will be done while being recorded, allowing the facilitator to listen, ask questions – during the test, and fill out the admin at a later date. Though all questions must be asked. Visual recordings – either photos or video, will allow us to analysis body language. |
| **Data Analysis**  Qualitative data and quantitative data should be collected, both will be put in graphs comparing iterations side by side. Allowing the group to determine if an improvement in one area, decreases performance or preference in another. Allowing us to make appropriate iterations. In other words, using the data, we will compare it to our matrix, and determine viable routes of iteration.  Usability testing will allow us to track progress between releases, assess our viability, making stop/go decisions (is the design good enough to release to an unsuspecting world).  Correlating performance vs. preference – they should automatically be interlinked (if a task is poor in performance, individual’s wont preference it), though, if they are not, preference should shape performance (preference is the highest importance) – according to the design principle performance vs. preference. |
| **Concept testing**  stuff I need help with.  Due to there being two devices – one being intended for families and one being intended for problem gamblers – roles and role playing needs to occur in order to test the concept.  Concept testing – pairs (either with facilitator pretending to be family – and problem gambler on the wearable), or two interviewees, being on the application and wearable – problem gamblers has to be on the wearable, they can’t test the application because that’s where all the money is transferred from and the commitment level is set. Application can be tested by anyone, though in order to test concept – family or a loved one of the gamblers would be beneficial.  Concept testing is also potentially going to be investigated through stakeholder testing – to determine viability from experts from the field.  Usability testing – General usability methods will be implemented. Roles don’t need to be allocated. |
| **Script**  **General users (the selected 12)**  Begin with niceties, explain what the application is, do not show they how to use it, Give them a set of tasks to achieve (the ones provided), fill out the templates accordingly, due to information not wanting to get lost, record the test, and so the facilitator can add to the template at a later date. Give them the tast, don’t explain to them how to do it, unless they ask, and when they ask, don’t give them all the steps, just the one they are stuck on e.g if they are finding it difficult to transfer money, show them where it is, not how to do it. Once the testing is compete, ask them about certain areas in which need work, iterate on those areas, and ask to do a comparison, why do they like the new version?. Once that is complete, take them through the post interview survey. Finally ask general questions, what do you think was done right? What was done wrong? If you could redesign it, what would you do differently?  **Intoxicated users (the current 2)**  Begin with niceties, GET CONSENT TO BE DRUNK (sign a contrast), then explain what the application is, ensure the users are constantly aware (it may be beneficial to explain the application before they get drunk), then get them to sit down and complete the usability test (the same ones with the general users), a similar process to the general usability testing. Ensure that all content they speak about that isn’t relevant to the testing is cut out of the interview.  **The heuristic users (the current 4).**  Begin with niceties, explain the application, but not how it works – what it does. Ask the users to play around with the application, get them to attempt to break it, manipulate it. Then when they are ready – sit them down and go through the heuristics with them.  E.g so after your experience, do you believe there is adequate error prevention, no? Why? On a scale of 0 – not a big issue, to 4 – an extreme issue – where would you place it?. |

**Matrix**

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| *Our two abstract measures are – performance and preference.*  ***Performance:***  ***Think aloud.***  *Error rate, and where errors occur,*  *Success rate, and where success occurs.*  *Time it takes for a task to be completed.*  *General comments occurring from think alouds (what the user does in order to complete task)*  ***Heuristics:***  *Visibility of system status*  *Match between system and the real world*  *User control and freedom*  *Consistency and standards*  *Error prevention*  *Recognition rather then recall*  *Flexibility and efficacy of use*  *Aesthetic and minimalist design*  *Help users recognize and recover from errors.*  *Help and documentation*  ***Preference:***  ***Think alouds:***  *User satisfaction rating – and why.*  ***Post testing survey:***  *Does the product deter problematic behaviour?*  *Does the product reduce stress?*  *Does the product empower you to re-evaluate their choices?*  *Does the product allow for a personalised experience?*  *Does the product educate you on problematic behaviour?*  *Does this product inform you on your lack of control?*  *Is this product easy to use?*  *Does this product allow you to identify when you have a problem?*  *Would you use this product to minimise gambling related harm?*  *Do you believe this product is viable – would you use it?* |