Project SAM: Developing an app to provide self-help for anxiety

PART 2: APPENDICES

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Appendix Ia

Student Anxiety Management (SAM)

Mobile Application

Technical and Functional Specification

Phil Topham
Praminda Caleb-Solly
Paul Matthews
University of the West of England
Bristol
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Introduction

Purpose

This document provides the specification for a mobile-enabled web application for the monitoring and management of anxiety by students. The current development follows on from a research project conducted at UWE in 2010/11 where prototype interfaces were designed and a basic Android application was developed and field tested. The next phase is to develop a cross platform solution for UWE students to be provided as a welfare service - and subsequently made available to a wider audience.

Approach

We anticipate an iterative development process, with prototype designs being tested and refined with feedback from student testers. We will be able to provide access to student testers on campus and the outcomes of each of these user evaluations will be discussed together with the UWE project team as part of the user-centred design process. We are also looking for a knowledge sharing approach to the technical development, providing capacity building in application design and development for participating UWE staff and student groups.

Functional specification

1. **Application introduction & background information**
    a. Overview of application functions and features. On first run, opens automatically, thereafter accessible via a menu
    b. Information on anxiety and managing it (freeform)
2. **Anxiety profile**
    a. The user creates and maintains an anxiety profile based on 4 axes/indicators (intensity of: feelings, physical sensations, worrying thoughts, avoidance), which may be updated at ad hoc intervals;
    b. The historic anxiety profile is stored and may be visualised as a graph enabling the user to interactively select time-periods/dates to customise the view.
3. **Events profile**
    a. The user maintains a list of anxiety-inducing events and rates them by severity.
    b. Instances of events are created (user picks from choice of previously identified events) with associated dates and displayed on a calendar view. Additional events can be appended to the list.
    c. Calendar events to appear as markers on the anxiety profile view.
4. **Trial and evaluation of self help**
    a. Self-help techniques are suggested by the system according to anxiety profile;
    b. User rates the efficacy of the self-help technique, recording the times / frequency of use.
    c. Techniques rated as ineffective can be suppressed when new suggestions are made
5. **Referral & Further information**
    a. A screen provides links to further sources of information and contact details for the UWE counselling service.
6. **Social sharing**
    a. Users anonymously share experiences of using a particular technique or coping with an event.
    b. Home screen to show an indication of when experience has been shared (most recent and top rated comments)
    c. Advice may be up- or down- voted or flagged as inappropriate by any user. One report of such will place it in quarantine.
7. **Self-help "mini-games"**
    a. Minigames to be developed, with scores recorded and the ability to share scores via the social sharing function;
        Minigame example: User enters 5 negative thoughts and for each an opposite, positive thought. These are then presented at random in rising, animated patterns and sizes and user must tap on the positive ones to receive positive scores, but receives a negative score if they choose the negative thoughts. Rapidity of presentation and associated score to increase with time.
    b. Minigame features will be unlocked based on threshold levels of interaction with the profiling and events features.

Non-functional considerations

Engaging users

1. To maximise commitment to self-help activity, the application should present a suitably engaging interface and features to maintain engagement.

Activity

1. For research purposes, anonymised activity should be logged (locally with central synchronisation): date and time of activity, which screens activated, which features used.

Security

1. The application should be password protected and should store information in an encrypted format;
2. Data sent across the network should use a secure SSL connection, as should the web application itself

Privacy

1. Access to social sharing should enable setting a pseudonym;
2. The user should be able to edit their comments/contributions.
3. Flagging inappropriate comments will not reveal pseudonym identity.

Technical requirements

1. The application needs to be platform agnostic and should therefore work on Android and iOS in addition to other mobile and desktop web browsers;
2. User data should be synchronised to a central server, allowing users to access their profile over the web in addition to on the phone;
3. Data logging and basic information access should work offiline, with social sharing and data synchronisation working when a wifi connection is available.

Documentation

1. Complete documentation on all the code is required with all code fully commented.

Timeline & Phasing

Phases for costing and estimating

Phase	**Features**
Phase 1	● Anxiety information and referral options ● Profiling ● Self-help: Mini-games (one or two for bias modification)
Phase 2	● Events tracking ● Matched self -help / mini-games
Phase 3	● Social sharing ● Further mini-games, including sensor-based

Annex 1: Test Scripts

Initial set up and login	1. Is assigned a unique user token. 2. Can create a password and receive reminder via email if forgotten. 3. No access to application once password set
Profile	1. Can set anxiety levels along each dimension to scale 1-10 with feedback given before level saved 2. Can update levels at any time 3. Historic anxiety levels saved and visible on graph 4. Graph defaults to one week, can zoom out to one month and can scroll backward and forwards 5. Each anxiety dimension plotted in distinct colour /pattern with key shown
Events	1. Can create new event types and assign description and category 2. Can update and delete event types. Deleting removes all previously created instances with a warning 3. Can rate event types according to anxiety inducing extent 4. Can create instances of event types and assign dates 5. Can display event instances in calendar view 6. Calendar event instances appear in profile graph
Self-help	1. Self help methods presented from database consisting of overview, a number of steps and an associated image 2. Self help suggestions consistent with profile 3. Can record when self help methods used and can rate the method each time used 4. Cumulative score for method recorded and displayed 5. Self help suggestions sorted according to cumulative rating 6. Can access sharing function
Minigames (generic)	1. First minigame available from menu item, subsequent become available through usage milestones 2. Can initiate gameplay and sustain play in as desired 3. Scores recorded and high score shown in games list
Sharing	1. Can share event instance, minigame score or self help usage instance with a comment 2. Previously shared items displayed and may be deleted 3. Home screen displays recently shared items (3 newest, 3 higest rated) 4. Can rate up or down others shared items 5. Can flag other's shared items as inappropriate 6. If so flagged, items no longer visible to all

Data portability	1. Syncronisation when wifi connection is available 2. Indication of time since last syncronisation on home screen 3. User can login to web application or different device and have their full profile and data available

Annex 2: Screen Content Drafts

Introduction

This mobile phone application aims to help you to start managing your anxiety using the following features:

- Recording how your anxiety affects you over time;
- Identifying issues and situations where you would like to manage anxiety;
- Suggesting some basic tools of anxiety management for you to try.

The app is not a replacement for a qualified counsellor or therapist. If you are unsure about using it you may wish to consult the university counselling service or your GP via the links below. Most services will provide an option for enquiries by email.

Guidance

Like all new skills, anxiety management requires regular practice.
Although the features of this app are based on those used in clinical settings, it is not intended to be a treatment or psychotherapy programme. If you require more information about anxiety or specialist help with anxiety management, we suggest starting with the links given here. If you remain concerned about anxiety or other aspects of your health, we advise making an appointment to see your GP.

What is anxiety?

Anxiety is a normal but sometimes exaggerated response to the challenges of life. It is a complex response that involves both mind and body. We can learn to modify our responses to anxiety by first attending to how and where they affect us.

Self-help suggestions

When you're feeling tense - for 5 minutes.
Put both feet on the floor and take slow, deep breaths.
Take a break from where you are and what you're doing.
Talk about your concerns with a friend, relative or colleague.

Every day
Eat, sleep and exercise regularly.
Spend half an hour before you sleep writing down your worries.

Notice and appreciate the times when you feel more relaxed.

Twice a day for 10 minutes each
Sit or lie comfortably. For each muscle in your body, tense, hold for 5 seconds and then relax for 10 seconds.
Practice shifting your attention away from your inner feelings and out towards what you can see, hear and smell around you.

Links to further information and specialist help

NHS Choices-Anxiety:
http://www.nhs.uk/Conditions/Anxiety/Pages/Introduction.aspx

AnxietyUK:
http://www.anxietyuk.org.uk/?gclid=CITpi6Sw1qoCFZRc4Qodu3ha5w

UWE Counselling and Psychological Services:
http://www1.uwe.ac.uk/students/healthandwellbeing/counsellingservice.aspx

Your GP: If you are concerned about your anxiety or other aspects of your health, we advise making an appointment to see your General Practitioner.

Ancillary Requirements

Duration
Please estimate how long it will take for you to produce a Phase 1 specification version (page 4) for beta testing.

Knowledge Exchange
Please indicate how you might engage with members of the UWE project team staff to facilitate knowledge exchange to aid their professional development.

Servicing
Please indicate the level of technical support, maintenance and updating that you will be able to supply in the first year of operation and any additional costing attached to those activities.

Samples of work
Please supply samples of your work that would be relevant to this proposal e.g. screenshots of apps.

References
Please provide contact details of two customers or professional bodies who would be willing give us a reference about your work in this area.

Intellectual property rights
Please confirm that you agree that UWE will own the intellectual property rights to the application, design and source code.

Information for Suppliers
Please confirm that you have read and understood the Information for Suppliers on the UWE website: http://www.uwe.ac.uk/finance/purchasing/supplierinfo/index.shtml

Quotation deadline
Please note that the deadline for the return of your quotation is Friday, December 2nd.

Enquiries
If you have any questions regarding the specification or the quotation process please contact Phil Topham on Phil.Topham@uwe.ac.uk. Tel: 0117 32 82294.

Appendix Ib

UWE project team

Phil Topham, Department of Psychology. Senior Researcher (Counselling Psychology); previously student counsellor and Head of UWE Counselling Service.
Current research interests: psychological support for students, online self-help, social anxiety, systematic evaluation in therapy.

Paul Matthews, Department of Computer Science and Creative Technologies. Senior Lecturer specialising in Information Management, Web Development and Social Media.
Current research interests: social knowledge in online communities; mobile technology.

Praminda Caleb-Solly, Department of Computer Science and Creative Technologies:
Senior Lecturer specialising in Interaction Design and Human-Computer Interaction.
Current research interests: assistive technology to support older adults; CAD tools for sustainable construction; interactive evolutionary systems to support web design; locative media apps for students.

Consultation - contributors by organisation and role

UWE

Director, Professional Doctorate in Counselling Psychology programme.
Senior Lecturer in Psychology.
Senior Student Adviser.
Psychotherapist and Senior Counsellor
Senior Counsellor
Head of Wellbeing Service.
Senior Wellbeing Practitioner.
Clinical psychologist and Senior Wellbeing practitioner.
Wellbeing Practitioner.

NHS

Senior counselling psychologist in adult mental health.
Senior clinical psychologist in adult mental health.
Senior Mental Health Care Practitioner and High Intensity CBT Therapist.
Senior trainee psychiatrist.
Counselling psychologist / Senior psychological well-being practitioner.

Independent Practitioners

Counselling psychologist.

Senior accredited psychotherapist

Clinical Psychology Forum www.ClinPsy.org.uk

Qualified and trainee clinical psychologists (names not known).

Consultation request

Dear

I'm pleased to inform you that we have been given funding to develop a mobile phone app to provide self-help for anxiety. This will be a UWE-branded app that will be available to Android and iPhone users and which we hope will be beneficial to UWE students.

The project team consists of myself (Dept. of Psychology) with Paul Matthews and Praminda Caleb-Solly (Dept. of Computer Science and Creative Technologies). We have appointed a local software development company to construct the app to our specification.

We would like to draw on your professional expertise with respect to the clinical content of the app. In your view

(a) What anxiety management interventions would be best delivered via mobile phone app?

(b) Apart from trial-and-error, what principles, theory or evidence might we use to guide users towards particular interventions?

I've attached some examples of self-help interventions from various sources on which you may like to comment in relation to your views and do forward this email to colleagues as you see fit. Your help is much appreciated.

Best wishes,

Appendix Ic

Consultation: Rationale and Specification

Student Adviser

'I think self-help & developing mental approaches for coping is going to be even more key for students in the coming years. I expect to see an increased amount of stress over the next few years due to students having raised expectations of themselves, and also additional pressure from parents or others who are providing the funding. With the fees becoming £9,000 I think there will be increased fear of failure, and in some cases serious anxiety may develop about whether the accumulation of huge debt in pursuit of getting a degree is a good idea, especially in a difficult economic climate where they cannot be sure of related employment afterwards. I think that the networking potential for those with social anxiety could also be a really important element of the application. There is a lot of assessment based on group work, presentations that have the potential to cause a lot of anxiety. Whilst reasonable adjustments can be made in many cases it isn't always possible to fulfil the learning outcomes for modules without doing these.'

Psychotherapist and student counsellor

Social anxiety is very widespread in students…..it always scores as the most common of our presenting problems alongside depression, (and the two are often inter-linked) in Counselling, so the need for the app is quite broad. If the 'app' can make it easier for a student to access professional help this will be of benefit to those students who end up leaving the course simply because they cannot cope with the social aspect of attending, speaking in seminars or working on group projects or assignments, not because they cannot reach the required academic level.

In developing the app, you need to proceed with caution, because some students will be 'frightened of being frightened' – in other words it is hard for them to tolerate knowing more about their own anxiety. They may be helped by some 'normalising' about anxiety, and how we need a certain level of it for self-protection, and how it is part of the existential experience of being human, particularly as a young adult. Information on the prevalence of anxiety could be helpful here. Also 'normalising' the body's responses in panic or anxiety, and how these levels of arousal are not life-threatening but can be reduced, will be reassuring and anxiety-reducing. So the educative potential of the app is large, and this can create hope and optimism in a difficult situation for the student.'

Cognitive–behavioural psychotherapist and trainer

1. *Don't make the app too complicated.*

2. *Clarify level of severity for app users: mild to moderate levels of anxiety.*
3. *Need to exercise care regarding what the app may open up. In introducing the app to users, be clear that it is to help them work on current anxiety concerns rather than issues from their past.*
4. *Remind users to ensure that they have ease of access to their support systems and of the importance of taking care of oneself. Could encourage users to log personal support options on the app.*
5. *Engagement: build in short-term achievable goals so that people can see change quickly and be rewarded by it. Engender hope. Importance of being in control of personal exposure (self / others). Provide unexpected inputs e.g. Bloom.*
6. *Questions on the profile need to be informed by diagnostic criteria; differential diagnosis means that interventions will be different and matched to diagnosis. CBT perspective useful here.*

   Transdiagnostic model of anxiety may be useful (Beck / Salkovskis – see Frontiers of Cognitive Therapy).

   The anxiety equation is that anxiety sufferers tend to:

   a. *Over-estimate the probability of an event happening to self;*
   b. *Over-estimate the negative impact of the event on self;*
   c. *Under-estimate one's ability to cope with it.*

   (Could link this to peer support as a form of cognitive restructuring.)
7. *Important to profile environmental factors – which situations do you avoid? Safety behaviours – how do you cope with challenging situations? Identifying and addressing safety behaviours may be a step too far but concept can inform the structure.*
8. *Self-help interventions re attentional focus and thinking styles are OK. Question of balancing self-help on emotions, thoughts, sensations, behaviour / performance.*

ST4 General Adult Advanced Trainee Psychiatrist

Background and Rationale

This is a well-researched and presented rationale.

Having worked in General Adult secondary Mental Health services, open referral Early Intervention services, Addiction services and Eating Disorder Services I would agree that anxiety represents a prominent manifestation across all areas of mental ill health and is often an early manifestation of subsequent problems. The rationale for online self-help makes sense as does the highlighted emotional relationship that people have with their phones.

Self-help

I would support a CBT model; that seems well suited to mobile application. I would see it as a useful vehicle for offering hope, reassurance, problem solving and encouraging continuation through gratitude for continued use. It would benefit from flexible, non-

formulaic pathways to enhance engagement. Matching individual profiles to specific self-help is appealing.

Monitoring

I would like to contribute caution around monitoring of certain symptoms in anxious individuals who may become sensitive to hyper-vigilance in this area. There will be those who pick up symptoms to worry about from this (but anyone could do this very quickly with a Google search) and there will be those who start to monitor following this- but as you say, we would hope this risk would be fairly low in the student population. The problem is as many of the symptoms are physical this does provide a temptation to become over aware of physical sensations such as tingling, butterflies, tightness, heart beating. Though we would hope that clarifying that these are symptoms of anxiety and not a sinister underlying physical condition that this would be reassuring.

Risk

I agree just something early on in the app about approaching GP/GP out of hours with significant concerns, rather than repeating this message. As long as we are aware that anxiety goes along often with depression and suicidality and harmful drug and alcohol use.

Social networking and peer support

Inclusion of anonymous peer messages outlining what has been helped them through to engender hope in others would be useful. Perhaps social networking could be a distinct separate aspect of the app that people could work up to using as part of step wise process. I have seen first-hand the disabling effects of cyber bullying and would be keen for this to be considered carefully. Online chat could be anonymised and the ability of the service to monitor activity to protect against bullying would need to be considered. I'm sure security and the use of pin numbers will be considered. And I am pleased that the need to consider management of risk has been highlighted in the proposal and I would be glad to contribute further to thoughts around this.

Senior Mental Health Care Practitioner

- *I agree that there is a need for an anxiety app.*
- *An app with the backing of UWE would allow students to access an app that has credence.*
- *I would have reservations around risk and security of personal devices.*
- *I see an app as immediate help/reassurance in that it can give information about the physical and mental symptoms of anxiety, much in the same way that psycho-education courses operate.*
- *I believe that graded exposure needs to be carried out with the assistance of a qualified practitioner for a variety of reasons but mainly because people improve more quickly through the 1-1 relationship.*

Senior Lecturer in Psychology

- *General affirmation for holistic, cross-domain ethos of the app.*
- *No significant risks in overall design detectable from information provided.*
- *Query whether engagement power of the app could be enhanced by some way of matching to personal style. Agree that is challenging and may be achieved initially through personalisation features of the app.*
- *Concern that self-assessment profile is robust re validity and reliability – but see counter-argument re personal questionnaire philosophy.*
- *Support intuitive, organic approach to using self-help opinions and building personalised toolkit.*
- *See goal-setting literature. Idea of publicising goals and progress effective in motivating change behaviours.*
- *Social networking options potentially very useful in support and guidance, even if anonymous.*
- *View that intrinsic motivation has greatest impact on behaviour.*
- *Resources, resilience and gratitude: query more of a positive psychology slant to the self-help options.*
- *Idea of building resilience:*

  People have resources they can identify and draw on;

  People inclined to do more of what they're good at;

  Value of recognising gratitude to self for progress.

Appendix Id

Consultation on style and content of the app: Summary of comments including prototype user evaluations

A detailed listing of consultation proposals is available from the authors.

Present it as a vehicle offering hope, reassurance and problem solving.
Incorporate flexible, non-formulaic pathways to enhance engagement.
• Create a personalised self-help experience e.g.: • Have a "person" (animation?) who works with the user. • Use the user's name to have some sense of a relational connection. • "Welcome back X" when they reopen app. • Feedback on a seemingly personal level to the user. • Personalisation of look and feel (wallpapers, sounds)
Guidance for users: · Optimal use for mild to moderate levels of anxiety. · To help with work on current anxieties rather than issues from the past. · Something that some people find useful but may not work for everyone. · Remind users to ensure that they have access to their support systems. · Management of risk.
Information about anxiety: · Messages that normalise the experience of anxiety. · Information on the value and functioning of anxiety. · Information on the prevalence of anxiety. · Links to information about specific anxieties. · Remind users that symptoms are attributable to anxiety not impending doom.
Thought for the day: something to think about, famous or helpful phrase.
Provide unexpected inputs.
Quick-view of self-help methods
Method of marking which situations you are in when panic situations occur.
A "panic" feature to prompt you with coping strategies for stressful situations
Self-help options: · Encourage users to try out self-help options. · Suggest a step-wise approach moving from simple to more complex skills. · 'If you found that helpful, you may also like to try this' · Compile self-help activities relevant to the user's profile.

· Interventions put in some kind of game/"fun" way.
Use of voice recording for worry logs and thoughts diary.
Space for notes to describe “thinking anxiety” associated with an event
Build in short-term achievable goals.
A space to plan and record graded exposure exercises.
Integrate events feature with the native Calendar application on the device platform.
Coping strategies for specific situations.
Coping statements to be used as prompts in difficult situations.
Do’s and don’ts – easy access list of things to do/not to do in anxious situations.
Option to compile list of tips /coping strategies.
Plot events and their anxiety (in the past) on the graph to enable comparison between expected and actual anxiety levels
Have a feature where the user can “review” their day, in terms of how anxious they thought they were going to be and how anxious they actually were
Audio or text diary to record ideas and progress
Reward the user if they calm themselves using a technique (star/smiley face?)
Encourage gratitude for persistence and self-reward for achievement.
Monitoring the practice package with achievements and rewards
Get feedback from users about what they have found helpful.
Develop knowledge base of self-help interventions and user evaluations.
Get feedback from practitioners about successful and popular interventions - inform development of the app.

Appendix Ie

Self-critical review of user impact and institutional duty of care

Near the start of the project, the Project Lead (PT) drafted a self-critical review of its aims to provide, in dialogic form, an ethical perspective on the preceding rationale.

Are we confident that the proposed application will provide a form of self-help not otherwise available and which, in general, will help students to ameliorate their anxieties?

1. The rationale for the application has been constructed with regard to research and practice in self-help, anxiety management and psychotherapeutic process.
2. The rationale has been reviewed in consultations with university support staff and mental health practitioners. The development and evaluation of prototype applications by students, including those self-reporting varieties of anxiety, have further guided appropriate development from a user perspective.
3. Availability to the student population will be concurrent with evaluation trials across representative user groups and student support staff, enabling modifications to be identified at an early stage. This will be integrated with global research outcomes on mobile self-help applications for mental health and well-being, as they emerge.

Do we judge that, on balance, the potential benefits of the application significantly outweigh any foreseeable harm to users?

1. Yes. Self-help is valued by users, supports user autonomy, can be effective, reduces demand on frontline services and may encourage appropriate use of specialist resources.
2. Although research on computerised self-help is limited, approved self-help resources tend to be limited in scope and within the user's control, making adverse effects less likely.

Have we made a sufficient evaluation of possible adverse effects on student users?

1. We have reviewed research on safe and efficacious use of self-help procedures, on- and off-line. We have consulted with senior mental health practitioners at UWE and in the NHS.
2. Possible adverse effects identified through consultation and research: application inappropriately matched to user needs or severity of concern; hyper-vigilant checking of anxiety levels; failure to meet expectations of change within duration.

Have we done what we reasonably can in mitigation of possible adverse effects?

1. Initial and subsequent use of the application start with information about its use and its limitations. Contact information is provided for professional support in using mobile self-help.
2. Workshop evaluations and field trials of prototypes by student users have provided guidance on usability issues.

3. Availability to the student population will be concurrent with evaluation trials across representative user groups and student support staff, enabling adverse effects to be identified at an early stage. This will be supplemented by monitoring global evaluations of mobile self-help applications for mental health and well-being.

Have we made sufficient provision for student contact and support where the user's mental health deteriorates while using the application, whether or not caused by that use?

1. Initial and subsequent uses of the application include guidance about professional support, including local service information.
2. Contact with user's own GP is emphasised where the user has concerns about their mental health.

Does the application design pay appropriately diligent attention to safeguarding personal and sensitive data?

1. This aspect of the design has been addressed in the technical and functional specification document and is line with good practice in the design of mobile technologies. Further development of the application to include social networking related to self-help will review anonymity and confidentiality issues.

In offering this self-help application to the student population, are we confident that we are fulfilling our duty of care to student users, and particularly our enhanced duty of care to students with mental health concerns?

1. As the application is developed and before it is made available to students, there will be further consultation with UWE managers, support staff and mental health practitioners. This will seek a consensus on duty of care obligations and any further action that may be necessary.

Appendix IIa

Summary features of four common anxiety disorders

Diagnosis and lifetime prevalence	Definition	Key features
Panic disorder 3.5%	A period of intense fear or discomfort, developing abruptly and peaking within 10 minutes.	Physiological reactions Fear of losing control Feelings of unreality Fear of impending doom
Generalised anxiety disorder 5-6%	Excessive anxiety about a number of events or activities, occurring more days than not. The person finds it difficult to control the worry.	Restlessness Being easily fatigued Difficulty concentrating Muscle tension Sleep disturbance
Social phobia 13%	A fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others and feels he or she will act in an embarrassing manner.	Exposure to the feared situation provokes anxiety. Feared situations are avoided or are endured with distress. Significant impact on occupational functioning and/or social relationships.
Specific phobia 25%	Persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation.	Exposure provokes immediate anxiety or panic attack. Phobic situation is avoided or endured with intense distress. Significant impact on occupational functioning and/or social relationships.

DSM IV-TR Criteria, 2000.

Sources: Rowney, Hermida and Malone, 2011; Nutt, Ballenger,Sheehan and Wittchen (2002).

Appendix IIb

Anxiety profile and Anxiety tracker: their role in self-help

The 4-factor Anxiety Profile and its ongoing record (Anxiety Tracker) are at the core of the app's role as a self-help tool. This briefing note informs guidance to the app developers on the form of visual/graphical display and record that will be helpful to that role.

Self-monitoring is well-established in supporting psychological change; self-help for anxiety identifies 4 aspects of anxiety to be monitored in order to support the following, iterative, stages of change:

1. Self-appraisal of the user's initial anxiety profile across affective, physiological, cognitive and behavioural dimensions.
   Therapeutic gains may include remoralisation through increased clarity, feelings of hope and a reduction in secondary anxiety.

2. Establishing the user's baseline level of anxiety response, in general, and to a range of anxiety-provoking situations, thus enabling the user to construct a unique profile.
   Therapeutic gains may include remoralisation through increased understanding and a sense of anxiety being containable.

3. Identifying and focusing self-help activity on profile elements (e.g. thinking) that are problematic, as opposed to those elements that are impact-neutral.
   Therapeutic gains may include symptom relief and an increased sense of control over anxiety through its objectification.

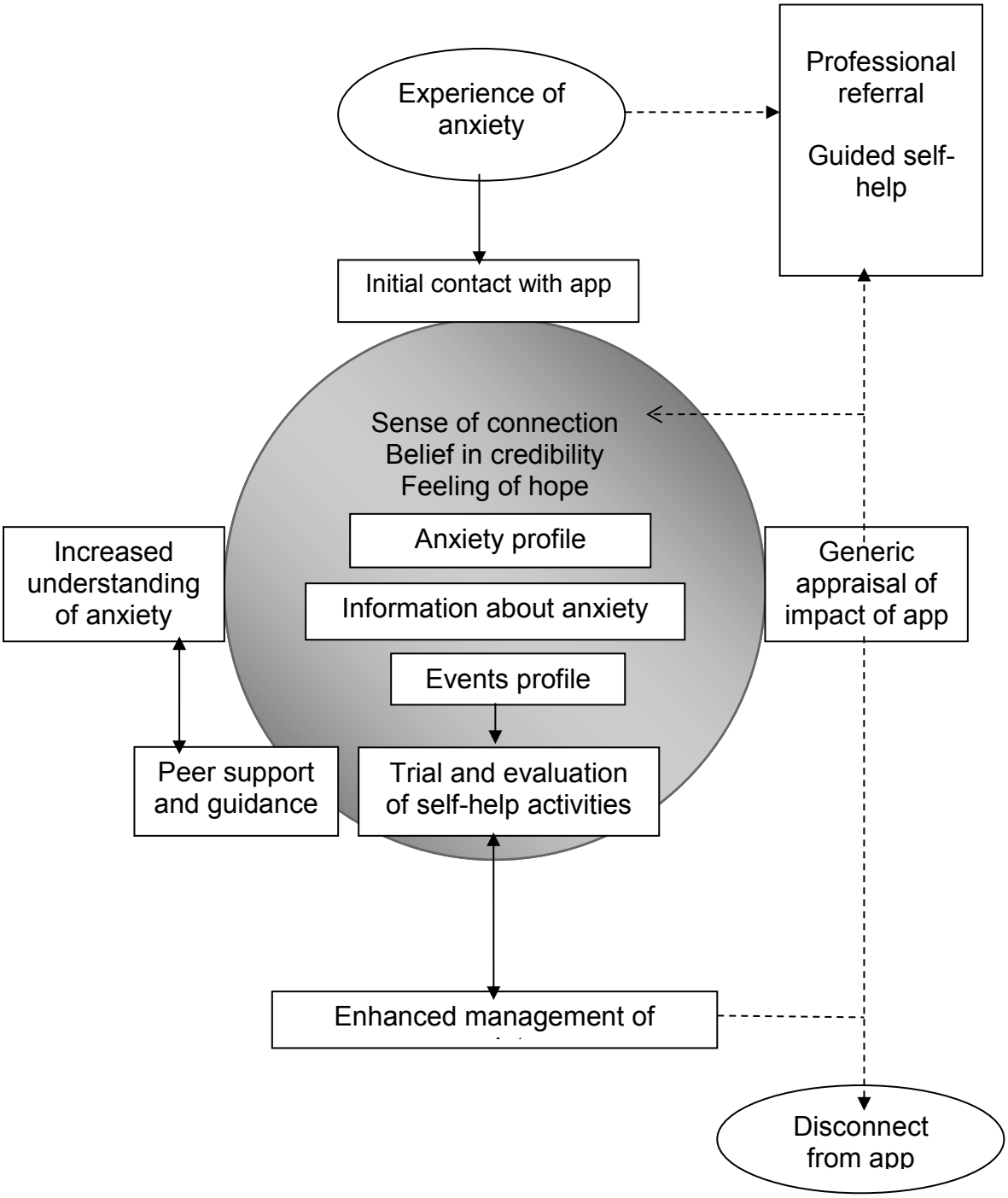
4. Reviewing levels of anxety after trialling self-help options in order to aid personalisation of self-help options.
   Therapeutic gains may include reduced vulnerability to panic as anxiety become less threatening and prospects of it becoming manageable increase. Also increased awareness that some coping strategies are unhelpful and could be modified or abandoned.

5. Reviewing progress - temporally and situationally - in order to make choices about engaging with further challenges and trialling of further (included self-sourced) self-help options.
   Therapeutic gains may include increased awareness of progress in managing anxiety elements and situations; increased sense of well-being and feelings of self-esteem.

Thus the Anxiety Profile / Anxiety Tracker functions of the app play a significant therapeutic role through the psychological impact of self-appraisal, self-monitoring, recording and review. The suggested therapeutic gains (1-5 above) cannot be recorded graphically but the graphical recording of anxiety should, as far as possible, support those aims.

Appendix IIc

Model of engagement and self-help



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Appendix IId

Therapeutic structure with rationale (initial draft for consultation)

Welcome statement	***Therapeutic rationale:*** *Quality of initial contact instils hope about recovery and offers objective focus for self-help.*

Menu	***Therapeutic rationale****:*
Introduction and Guidance	*Offer containment through engagement with professional interface.*
Profiling your anxiety response	*Shape expectations by communicating the aims and limitations of the app.*
Sources of your anxiety	*Minimise risk by drawing attention to professional help options.*
Self-help suggestions	*Promote autonomy through control of the self-help process.*
Links	

Introduction
This mobile phone application aims to help you to start managing your anxiety using the following features: · Recording how your anxiety affects you over time; · Identifying issues and situations where you would like to manage anxiety; · Suggesting some basic tools of anxiety management for you to try. The app is not a replacement for a qualified counsellor or therapist. If you are unsure about using it you may wish to consult the university counselling service or your GP via the links below. Most services will provide an option for enquiries by email.

Guidance
Like all new skills, anxiety management requires regular practice. Although the features of this app are based on those used in clinical settings, it is not intended to be a treatment or psychotherapy programme. If you require more information about anxiety or specialist help with anxiety management, we suggest starting with the links given here. If you remain concerned about anxiety or other aspects of your health, we advise making an appointment to see your GP.

What is anxiety?	***Therapeutic rationale:***
Anxiety is a normal but sometimes exaggerated response to	*Explain and normalise*

the challenges of life. It is a complex response that involves both mind and body. We can learn to modify our responses to anxiety by first attending to how and where they affect us.	*unpleasant experience.* *Encourage hope about managing anxiety.*

Your anxiety profile: Rate how much you are affected by aspects of anxiety. Score each item from 0 (not affected at all) to 100 (maximum possible affect). ***Therapeutic rationale:*** *Contain anxiety by identifying it and making it concrete.* *Reduce secondary anxiety by clarifying bio-psycho-social components.* *Record provides evidence of natural variation in anxiety.* *Record provides index of positive change in anxiety.* *Act as a motivator to change.*	
Feelings of anxiety and tension	
Worrying thoughts or images (e.g. 'Will I be able to do this?')	
Unpleasant physical sensations (e.g. sweating, shaking, nausea)	
Avoiding tasks, people or situations	

Self-help suggestions for you to try	***Therapeutic rationale:***
When you're feeling tense - for 5 minutes. Put both feet on the floor and take slow, deep breaths. Take a break from where you are and what you're doing. Talk about your concerns with a friend, relative or colleague.	*Support personal responsibility.* *Form the basis of personalised programs to make changes.* *Encourage trial-and-error approach.* *Concept of individualised self-help.* *Cognitive appraisal of self-help process.* *Feeling of taking control of anxieties.*
Every day Eat, sleep and exercise regularly. Spend half an hour before you sleep writing down your worries. Notice and appreciate the times when you feel more relaxed.	
Twice a day for 10 minutes each Sit or lie comfortably. For each muscle in your body, tense, hold for 5 seconds and then relax for 10 seconds. Practice shifting your attention away from your inner feelings and out towards what you can see, hear and	

smell around you.	

Profile your sources of anxiety. For each source of anxiety in the last week: Score 0 (no anxiety) up to 100 (maximum possible anxiety).				***Therapeutic rationale:*** *Clarify profile of situational anxieties.* *Clarify links between situations and anxieties.* *Cue cognitive appraisal of situational variation.* *Create structure and offer targets for anxiety management.*
Examples		My sources of anxiety	0-100	
Public places	Lectures			
Social gatherings	Seminars			
Close relationships	Coursework			
People in authority	Exams			
People at work	Employment			
Friends	The future			
Family	Everything			
Money	Thoughts or images			

Links to further information and specialist help	***Therapeutic rationale:*** *Locate self-help in wider community.* *Reassurance of availability of professional help.* *Reinforce personal responsibility for self.* *Signal ethical context.*
NHS Choices-Anxiety: http://www.nhs.uk/Conditions/Anxiety/Pages/Introduction.aspx AnxietyUK: http://www.anxietyuk.org.uk/?gclid=CITpi6Sw1goCFZRc4Qodu3ha5w UWE Counselling and Psychological Services: http://www1.uwe.ac.uk/students/healthandwellbeing/counsellingservice.aspx Your GP: If you are concerned about your anxiety or other aspects of your health, we advise making an appointment to see your General Practitioner.	

Links to personal networks for support and guidance	*Therapeutic rationale* *Social support provides a buffer against stress.* *People's stories reduce isolation and*
TBA	

	raise hope. *Peers provide advice, perspective and encouragement.*

If you have any concerns or complaints about this app, please contact: XXXXXXX If you have any concerns about your anxiety, please contact your GP.	*Provides assurance of competence.* *Maintains sense of professional containment.* *Upholds awareness of community support,*

Appendix IIIa

Self-help content: sources and indicative references

Anxiety: A self-help guide. Patient Information Centre, Northumberland Tyne and Wear NHS Foundation Trust. June 2010. www.ntw.nhs.uk/pic.

AnxietyUK: http://www.anxietyuk.org.uk/?gclid=CITpi6Sw1goCFZRc4Qodu3ha5w

Association for University and College Counselling: http://www.aucc.uk.com/links.php

Beaumont, E., Galpin, A. & Jenkins, P. (2012). 'Being kinder to myself': A prospective comparative study, exploring post-therapy outcome measures, for two groups of clients, receiving either Cognitive Behaviour Therapy or Cognitive Behaviour Therapy and Compassionate Mind Training. *Counselling Psychology Review*, 27 (1), 31-43.

Beck, A.T. & Clark, D.A. (1997). An information processing model of anxiety: automatic and strategic processes. *Behavior Research and Therapy*, 35 (1), 49-58.

Bennett-Levy, J. et al. (eds.) 2010. *Oxford Guide to Low Intensity CBT Interventions.* Oxford University Press.

Centre for Clinical Interventions: http://www.cci.health.wa.gov.au/resources/consumers.cfm

Centre for Clinical Interventions. *The vicious cycle of anxiety.* http://www.cci.health.wa.gov.au

Dealing with Anxious Thinking. Adapted from: Mental Disorders in Primary Care, a WHO Education Package. World Health Organization, 1998.

Diagnostic and Statistical Manual of Mental Disorders, 4th ed, text rev. Washington, DC, American Psychiatric Association, 2000.

Drubach, D. *The Brain Explained*. New Jersey: Prentice-Hall, 2000.

Edinburgh Mental Health Advice: http://www.edspace.org.uk/

Freud, S. & Breuer, J. (1893-1895). Quotation about the aim of psychoanalysis. *Studies on hysteria. The Standard Edition of the Complete Psychological Works of Sigmund Freud, volume 2.*

Get Self-Help (Cognitive Behaviour Therapy Resources): http://www.getselfhelp.co.uk/links2.htm

Improving Access to Psychological Therapies. *Good practice guidance on the use of self-help materials within IAPT services.* NHS March 2010. http://www.iapt.nhs.uk/silo/files/good-practice-guidance-on-the-use-of-selfhelp-materials-within-iapt-services.pdf

Kahneman, D. (2011). Quotation about 'The focusing illusion'. *Thinking, fast and slow.* Allen Lane. P.402.

Kennerley, H. (undated). *Managing Anxiety: A user's manual.* Clinical Psychology Deparment, Warneford Hospital, Oxford.

Kinnier, R.T., Hofsess, C., Pongratz, R. & Lambert, C. (2009). Attributions and affirmations for overcoming anxiety and depression. *Psychology and Psychotherapy: Teaching, Research and Practice,* 82 (2), 153-169.

Lally, P., Van Jaarsveld, C.M.H., Potts, H.W. & Wardle, J. (2010). How are habits formed? Modelling habit formation in the real world. *European Journal of Social Psychology*,. 40, 998–1009. Published online 16 July 2009 in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/ejsp.674

Lambert, M.J. (ed.) (2004). *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change.* 5th Ed. New York: John Wiley and Sons.

Martín-Merinoa, E., Ruigómeza, A., Wallanderb, M-A., Johansson, S. & García-Rodrígueza, L.A. (2009). Prevalence, incidence, morbidity and treatment patterns in a cohort of patients diagnosed with anxiety in UK primary care. *Family Practice*, 27 (1), 9-16.

McFall, R.M. (1965). *McFall's Mystical Monitor.* Personal communication to the authors in Bannister, D. and Fransella, F. (1986) *Inquiring Man: The Psychology of Personal Constructs.* 3rd Ed. Pp.162-163. Croom Helm.

MIND: http://www.mind.org.uk/

Mood Cafe (NHS Fife): http://www.moodcafe.co.uk/content.asp?ArticleCode=2

Morris, M.E., Kathawala, Q., Leen, T.K., Gorenstein, E.E., Guilak, F., Labhard, M. & Deleeuw, W. (2010). Mobile Therapy: Case Study Evaluations of a Cell Phone Application for Emotional Self-Awareness. *Journal of Medical Internet Research*, 12(2), e10. http://www.jmir.org/2010/2/e10/

NHS Choices - Anxiety: http://www.nhs.uk/Conditions/Anxiety/Pages/Introduction.aspx

NHS Information Centre for Health and Social Care. *Adult Psychiatric Morbidity in England, 2007: Results of a household survey.* Report of a survey carried out the by the National Centre for Social Research and the Department of Health Sciences, University of Leicester. http://www.ic.nhs.uk/webfiles/publications/mental%20health/other%20mental%20health%20publications/Adult%20psychiatric%20morbidity%2007/APMS%2007%20%28FINAL%29%20Standard.pdf

NHS Scotland (2006). *A guide to self-help resources for depression and anxiety: A practitioner's resource.* Scottish Executive: Edinburgh. Astron B45502 03-06.

NHS Primary Mental Health Service. *Dealing with anxious thoughts.* Gloucestershire Health and Social Care Community website: http://www.pmhsglos.org.uk/pmht244117.html

National Institute for Health and Clinical Excellence (NICE) 2011. *Priorities for implementation in general practice from the clinical guideline on Generalised Anxiety Disorder*. http://www.nice.org.uk/

Nutt, D.J., Ballenger, J.C., Sheehan, D. & Wittchen, H.U.. (2002). Generalized anxiety disorder: comorbidity, comparative biology and treatment. *International Journal of Neuropsychopharmacology,* 5, 315-325.

Rowney, J., Hermida, J. & Malone, D. Anxiety Disorders. *Disease Management Project*, 2010 Edition. Centre for Continuing Education, Cleveland Clinic. http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/psychiatry-psychology/anxiety-disorder/

Royal College of Psychiatrists: http://www.rcpsych.ac.uk/

University of the West of England. *Looking after myself.* Student Services: Health and Wellbeing website: http://www1.uwe.ac.uk/students/healthandwellbeing/selfhelp/lookingaftermyself.aspx

Wood, A., Joseph, S. & Linley, A. (2007). Gratitude - parent of all virtues. *The Psychologist,* 20 (1), 18-21.

Appendix IIIb

Self-help options with data structures

Help for anxiety NOW

Read this twice, slowly			
Self-help options for use when feeing very anxious			
CONTENT			
Panic is an intense form of anxiety which is a normal response to stress. Rightly or wrongly, my brain senses a threat to my health and wellbeing. These panicky feelings are uncomfortable but they will gradually subside. The following suggestions may help me >>>			
Follow links to these self-help options:		Menu Category	
Calm breathing **Picture peace** **It's only a thought** **Change the focus** **Worry pinball**		Relaxation – Physical Relaxation – Mental Relaxation - Mental Thinking and anxiety Thinking and anxiety	
User guidance			
Try these activities if you're feeling a bit panicky. Allow time for your anxious feelings to subside.			
Type	Learning level (1-3)	Duration*	Format**
Action	2	5 – 10 mins	Text +

Duration: Suggested duration of option.
****Format: Suggested media format given to developer for elaboration.***

Working with SAM

What's it for?
Use SAM to: Observe how anxiety affects you over time; Learn how thinking and lifestyle can contribute to anxiety; Identify situations where you want to reduce anxiety; Practice self-help options for managing anxiety.

What Freud said
Freud (1895) wrote that the aim of psychological therapy is to "Transform neurotic misery into common unhappiness." Don't expect to become completely free of anxiety, with or without the app. Aim for improvement in how you manage your anxieties in daily life.

Time and practice

Take time to think about and to practice the self-help options.
A recent study found that, on average, people took 66 days to establish a new habit.
Appreciate small improvements in how you manage your anxiety.

Get personal

This app is for you, so adapt it to what suits you best. For example:
Use photos of people, places and things you like as backgrounds.
Download your music to go with the exercises.
Start your own collection of self-help information and advice.

Using your anxiety profile

Study the infographs and ask yourself:
On which of the four anxiety factors do I score high and low?
What is my usual range of scores for each anxiety factor?
Which anxiety factors concern me most?
What methods do I already use for managing anxiety?
Think about your answers when trying out the self-help options.

Things that make me anxious

Use this list with the calendar to:
Recognise situations that you can manage;
Identify anxious situations to prepare for;
Set reminders to practice anxiety management skills;
Set reminders to take a break and do something you enjoy.

Are you a thinker or a doer?

Sometimes it's helpful to have clear tasks and be more action-oriented.
Sometimes it's helpful to explore ideas and be more reflective.
SAM provides a mix of Action and Reflection options.
Action options *(show icon)* are suggestions for activities or exercises to help you learn to manage anxiety.
Reflection options *(show icon)* give you information to think about and increase your understanding of anxiety.

How hard can it be?

Each self-help option has a Learning Level *(show icon)* of 1, 2 or 3.
Most people find it easier to start with level 1 options and progress to levels 2 and 3.
Your self-help preferences may come from all 3 levels.

SAM in summary

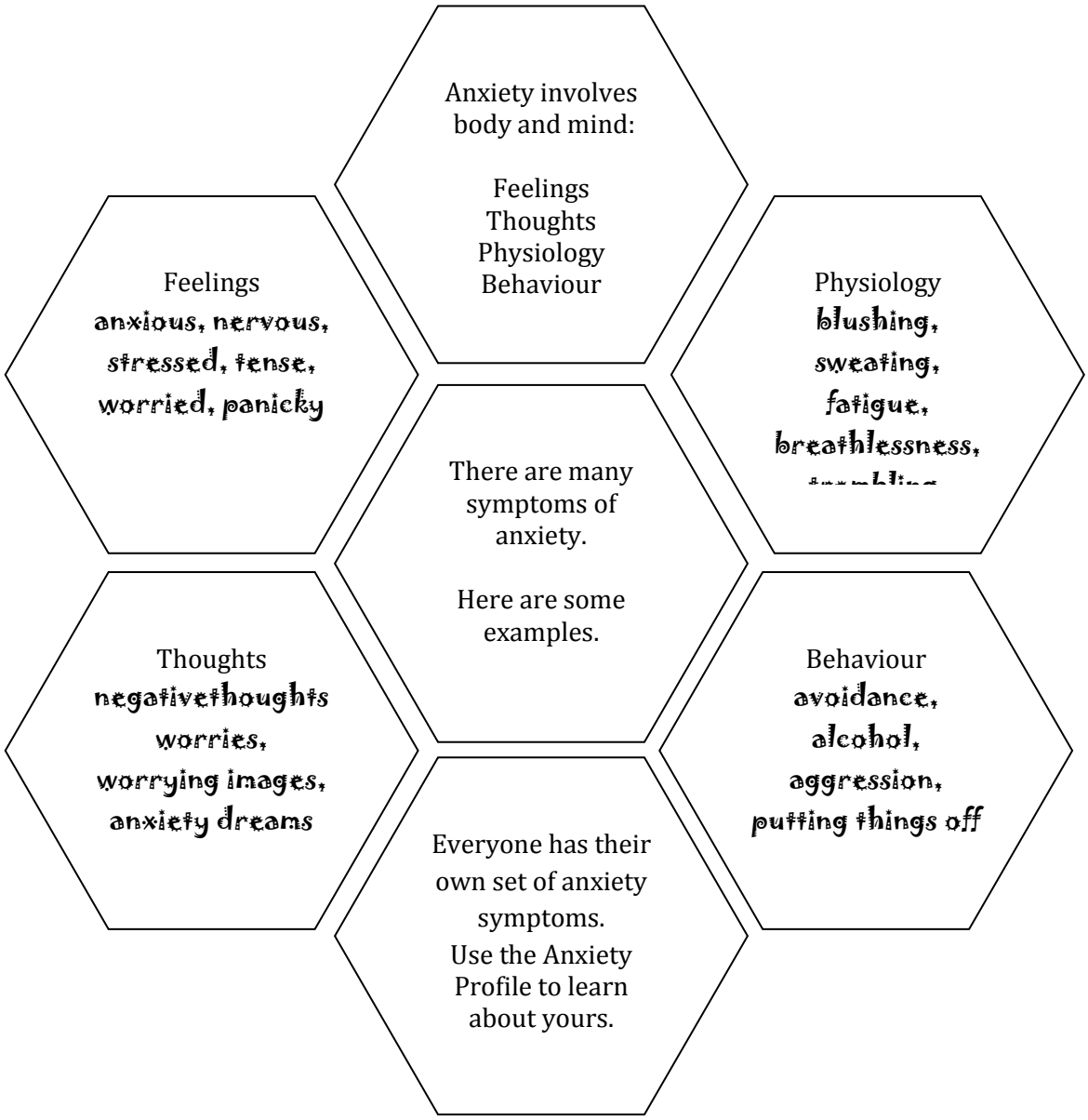
Review your anxiety profile
List what makes you anxious
Try out the self-help options
Share self-help tips in the social cloud
See what works for you

Build your personal anxiety management toolkit Practice, practice, practice

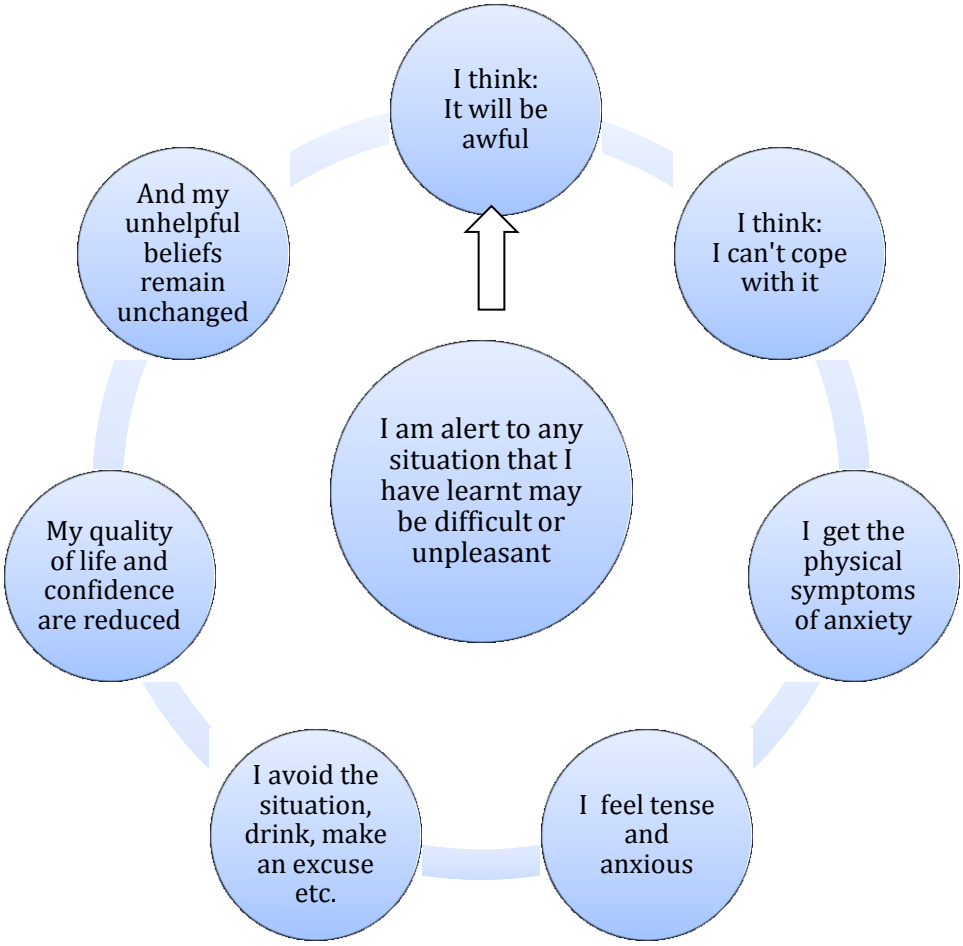
Information about anxiety

What is anxiety?			
Key facts about anxiety			
CONTENT			
Anxiety is a normal but unpleasant response that warns us of threats to our physical or mental well-being (cars, debts, illness, interviews, deadlines, certain people…). Although we all have the same anxiety system, we learn to deal with anxiety in our own individual ways. Anxiety is one of the most common problems in health centres and counselling services. The chances are that, in a group of 10 people, 1 or 2 will suffer from moderate to severe anxiety.			
User guidance			
Remind yourself of these facts from time to time. Swap experiences of anxiety with other people.			
Type	Learning level (1-3)	Duration	Format
Reflection	1	1 min.	Text +

Symptoms of anxiety			
Information to help you think about your experience of anxiety.			
User guidance			
It is advisable to consult your Doctor if physical or other symptoms are intense, painful or persistent.			
Type	Learning level (1-3)	Duration	Format
Reflection	1	2 mins	Text +



A typical cycle of anxiety			
Helping you analyse your experience of anxiety			
CONTENT			



User guidance			
You can redraw this example so that it matches your own experience.			
Type	Level (1 to 3)	Duration	Format
Reflection	2	5 minutes	Text + graphic

Thinking and anxiety

How do you think?			
Facts about thinking and anxiety			
CONTENT			
How we think influences how we feel and behave. We learn to think in particular ways; some ways are more likely to make us anxious. Try and distinguish between your thoughts and your feelings.			
User guidance			
Use your Worry Half-hour to practice this *(Link to 20)*			
Type	Learning level (1-3)	Duration	Format
Reflection	1	1 min.	Text

Examples of anxious thinking			
Common patterns of anxious thinking			
CONTENT			
Thinking the worst eg ‘The pain in my chest means there is something wrong with my heart’. ***Predicting that the worst will happen*** eg ‘They won't like me. They'll think I'm stupid’. ***Exaggerating negatives*** eg ‘I made a complete mess of it. It was an absolute disaster’. ***Overgeneralizing: if something happens once, you think it will always happen*** eg if you feel anxious in the supermarket, thinking ‘I'm always anxious when I go out’. ***All-or-nothing (black-and-white) thinking*** eg ‘Unless I do it with no mistakes at all, I have failed’. ***Imagining that you know what other people are thinking*** eg ‘I can tell they are thinking what a fool I am’.			
User guidance			
Try observing these in other people first!			
Type	Learning level (1-3)	Duration	Format
Reflection	2	5 mins	Text +

Question your thoughts			
Ways of exploring your thinking			
CONTENT			
Take an anxious thought and ask yourself: How do I know it's true? Would my friends agree with me? Is there a more helpful way for me to think about the situation?			
User guidance			
There are no right or wrong answers. Some thoughts are more helpful than others.			
Type	Learning level (1-3)	Duration	Format
Reflection	3	5 mins	Text

The focusing illusion			
An important observation about thinking			
CONTENT			
'Nothing in life is as important as you think it is when you're thinking about it.' (D.Kahneman) This observation, supported by research, suggests that anxiety will have less impact if we learn to pay less attention to our anxious thoughts and feelings.			
User guidance			
Check this out against your own experience in a range of situations.			
Type	Learning level (1-3)	Duration	Format
Reflection	2	1 min.	Text +

Change the focus			
Learning to shift your attention away from anxiety			
CONTENT			
You can learn to shift your attention away from anxious thoughts or sensations onto other thoughts or objects. Focus first on your breath as it enters and leaves your body. Now find and focus on a sound nearby. One by one, shift your attention to other sounds around you and then further away. Combine with a breathing exercise. *(Link to 14)*			
User guidance			
Can be done almost anywhere at any time.			
Type	Learning level (1-3)	Duration	Format
Action	2	1-5 mins	Text +

Positivity Practice			
Help with positive thinking			
CONTENT			
Enter 5 positive and then 5 negative thoughts related to your anxiety in situations. As your thoughts are randomly presented, score 1 for tapping a positive thought and score 0 for tapping a negative thought.			
User guidance			
Use this as practice for creating positive thoughts.			
Type	Learning level (1-3)	Duration	Format
Action	2	1-5 mins	Mini-game

You're biased!			
Introducing the idea that we don't always think straight			
CONTENT			
Anxiety is a fast response because it is a survival response and Our past experience will have taught us to fear some things more than others but Our present anxiety is not always proportionate to the size of the threat. Research clearly shows that, for some anxieties, we tend to: · Over-estimate the probability of something unpleasant happening; · Over-estimate its unpleasant impact; · Under-estimate our ability to cope with it. Notice how and when this appears to be true of other people. Think about how and when this might be true for you.			
User guidance			
These findings can be difficult to accept. It is important to keep an open mind.			
Type	Learning level (1-3)	Duration	Format
Reflection	3	5 mins	Text +

Relaxation – Physical

Calm breathing			
Reducing tension through controlled breathing			
CONTENT			
Sitting or standing, place both feet firmly flat on the floor. Breathe in to a count of one-two-three-four..... Breathe out to a count of five-six-seven-eight-nine-ten-eleven-twelve. You can also try this while walking at a steady pace. Repeat twice daily.			
User guidance			
If at any time you feel uncomfortable, stop and wait until the feeling clears. You may need to breathe slower and deeper. If uncomfortable feelings persist, you may wish to consult your Doctor.			
Type	Learning level (1-3)	Duration	Format
Action	1	5 minutes	Text +

Muscle relaxation 1			
Train your muscles to recognise being relaxed.			
CONTENT			
Sit or lie comfortably without crossing your limbs. Starting with your toes and moving up your body, focus on each muscle in turn: Gently tense the muscle and hold that tension for 5 seconds. Then relax it for 10 seconds. Repeat twice daily.			
User guidance			
If at any time it feels painful, stop and wait until the feeling clears. You may be tensing too hard or have a minor injury. If the pain continues, consult your Doctor.			
Type	Level (1 to 3)	Duration	Format
Action	2	10 mins.	Text +

Muscle relaxation 2			
Identifying areas of muscle tension			
CONTENT			
Wherever you are, whatever you're doing, you can scan your body for areas of muscle tension. Check first that you are not sitting or standing in a position that causes tension. When you notice an area of tension, use the tense-and-relax technique. *(Link to 16)* Notice if some areas tense up more easily and need more attention than others.			
User guidance			
Get in the habit of doing this a few times a day.			
Type	Learning level (1-3)	Duration	Format
Action	2	1-5 mins	Text +

Ground yourself 1			
Reducing feelings of unreality			
CONTENT			
Anxiety can be an intense experience where you feel detached from reality. Learn to ground yourself in the present, in your body and in images of calm. Here are some examples from which you can develop your own approach: 1. Breathing and focusing exercises as shown on this app. *(Links to 14, 19, 29)* 2. Touch the physical objects around you and feel their solidity. Do a bit of tidying up if you feel like it. 3. Walk with firm steps around your room or garden. Pop to the shop for something. 4. Talk to someone, maybe tell them you're feeling a bit stresssed. *(Link to 22)*			
User guidance			
Remind yourself that high levels of natural hormones, part of your body's anxiety response, are causing these effects.			
Type	Learning level (1-3)	Duration	Format
Action	2	5-10 mins	Text +

Ground yourself 2			
Using your memory to aid relaxation			
CONTENT			
Take a few minutes to think about a place and time when you felt relaxed. Give that memory a name and create a hand or finger movement (e.g. a wave or a twist) to remind you of it. Use the name and the movement to recall the calming memory when you need it.			
User guidance			
Practice this a few times to establish the connection.			
Type	Learning level (1-3)	Duration	Format
Action	3	1-5 mins	Text +

Relaxation – Mental

Picture peace			
Using pictures to reduce tension.			
CONTENT			
Choose one of these peaceful images. Allow your eyes to move over the image. Attend to the detail of the image, not to what you are thinking. Combine with a breathing exercise.			
User guidance			
Find a quiet place to practice this.			
Type	Learning level (1-3)	Duration	Format
Action	1	1-5 mins	Images

The worry half-hour			
Writing about worries helps to calm them.			
CONTENT			
Rather than let worries take over, practice this activity to take more control of them: Every day at a set time, take 30 minutes to work on your worries. Write down everything that is worrying you and what you think you can do about it. Have a good worry and then leave it all till the same time tomorrow.			
User guidance			
Requires practice for a couple of weeks to be useful			
Type	Learning level (1-3)	Duration	Format
Action	1	30 mins	Text +

It's only a thought			
Reduce the impact of worrying thoughts			
CONTENT			
Picture your thoughts as cars driving along a road, or as boats sailing down a river. Picture yourself sitting on the edge of the road, or on the riverbank, watching them pass by. Stay where you are and let your thoughts pass you by. There's absolutely no need to get in a car or a boat.			
User guidance			
Requires regular practice to be useful.			
Type	Learning level (1-3)	Duration	Format
Action	2	1-5 mins	Text +

A worry shared			
The benefits of talking.			
CONTENT			
It can be embarrassing to admit to anxiety. Yet talking is often a relief and friends can offer advice and support. Who could you most easily talk to about your worries? Aim to share at least one of your worries with this person.			
User guidance			
Try sharing small concerns at first.			
Type	Learning level (1-3)	Duration	Format
Action	2	1-5 mins	Text +

Stop that thought!			
A way of controlling intrusive thoughts.			
CONTENT			
We all talk to ourselves and we can influence what our inner voice is saying. Try stopping your thoughts in this way: Focus on a thought passing through your mind. Using your inner voice, say ‘Stop’ to that thought. You can back it up by stamping your foot or by snapping a rubber band on your wrist. Practice this technique to stop your worrying thoughts.			
User guidance			
Requires practice. Experiment with your own methods.			
Type	Learning level (1-3)	Duration	Format
Action	3	1 min	Text +

A simple meditation			
Allowing your thoughts to leave you.			
CONTENT			
Find a quiet place where you won’t be disturbed. Sit or lie down and make yourself comfortable. Allow your breathing to get into a steady rhythm then close your eyes. Pay attention to your breath as it enters and leaves your body. Allow your thoughts and sensations to come and go. Stay focused on your breathing.			
User guidance			
Quiet, private surroundings are essential.			
Type	Learning level (1-3)	Duration	Format
Action	3	20 mins	Audio guidance

Health and lifestyle

How to make anxiety worse			
Ways in which our habits can raise our anxiety			
CONTENT			
Drink lots of coffee. Take stimulant drugs. Smoke lots of cannabis. Get a daily hangover. Go without sleep. Eat junk food. Don't take breaks. Be late for everything. Say yes to everything.			
User guidance			
Try doing less of the above!			
Type	Learning level (1-3)	Duration	Format
Reflection	2	1min.	Text

Anxiety and ……..	
Lifestyle links with anxiety and their effect on you	
CONTENT	
Topic	**Tip**
Alcohol	Excessive drinking and alcohol withdrawal can make anxiety worse.
Avoidance	If you avoid what makes you anxious, you're missing an opportunity to learn to cope with it.
Brainpower	The brain is 2% of our body weight but uses 20% of our energy (approximately).
Exercise	Moderate exercise discharges anxious energy and stimulates the production of endorphins.
Kindness	Kindness to others can shift attention away from your anxieties and produce positive feelings.
Relationships	Research shows that the support of friends and family helps to reduce stress and anxiety.
Time	Start with 1/3 for your work, 1/3 for your body, 1/3 for your mind. Adjust accordingly.
Sleep	Reduce mental stimulation near bedtime. Use relaxation and meditation exercises at bedtime.
Work	Setting realistic priorities helps to control anxiety.
User guidance	
Don't work on all of these at once – but don't ignore them either.	

Type	Learning level (1-3)	Duration	Format
Action	2	1-5 mins.	Text +

Looking after me Individual questions to be randomly presented to the user			
Things that can affect your anxiety			
CONTENT			
Do I have realistic expectations of myself? Do I try and see things in perspective? Can I be optimistic as well as pessimistic? Can I admit I'm wrong,sometimes? Do I give myself a fair trial over mistakes? Can I be flexible? Do I share my worries with others? Do I look after myself, physically and mentally? Have I got interests or activities that I enjoy? Do I take action as well as thinking about things? Am I grateful for the small things in life?			
User guidance			
Accept rather than criticise your answers. Use your answers to think about changes you could make.			
Type	Learning level (1-3)	Duration	Format
Reflection	3	1-5 mins.	Text

Mystical Monitor			
Learn about your self by listening to yourself.			
CONTENT			
1. Find a quiet place where you won't be disturbed. 2. Using the audio recorder, talk about yourself and your life for 10 minutes. 3. Listen to the playback and think about what you've heard. 4. Delete the recording. 5. Repeat the process <u>at least once.</u> 6. What have you learnt? 7. How can you use this in your life?			
User guidance			
Will probably become more useful as you start to manage your anxiety			
Type	Learning level (1-3)	Duration	Format
Reflection	3	20-30 mins.	Audio recording

Making changes (1-7)

Type	Learning level (1-3)	Duration	Format
Reflection (x3) Action (x4)	1-3	As per user choice	Text +

Take small steps: 1 - Basics
Reducing your anxiety involves getting used to situations that make you anxious.
You will need to do this one small step at a time, with lots of practice.
Don't expect a quick fix.

Take small steps: 2 - Get started
To get started, think of a situation that makes you slightly anxious and which happens fairly often.
Record your level of anxiety (0-100) before and after being in this situation.
Repeat this exercise with other low-anxiety situations.

Take small steps: 3 - Build confidence
You now have a target list of low-anxiety situations where you can try out self-help options for managing anxiety.
When you feel more confident about these situations, try something that makes you a bit more anxious.
And so on, with lots of practice.
But don't rush to the next level till you're ready for it.

Take small steps: 4 - Get a slap
As a young student, a famous psychologist was anxious about asking girls for a date.
To overcome his anxiety, he resolved to ask 100 girls for a date.
He didn't get any dates.
He did get a slap.
But he got over his dating anxiety.

Take small steps: 5 - Imagine it
Add this to your self-help options:
Think of a situation that makes you moderately anxious.
Take a few minutes to imagine it in detail – colours, sounds, smells…..
Imagine being there and feeling calm: imagine how you would look, move and speak.
Use a relaxation exercise if it helps.
Practice this visualisation to prepare for the real thing.

Take small steps: 6 - Experiment
Following the guidance above, try out the self-help options on SAM, and any others that you discover.
Find out which ones work for you and practice them whenever you can.
Re-read the reflections on 'Information about anxiety' and 'Thinking and Anxiety'.
Check out how they apply to your work on anxiety.

Take small steps: 7 - You can do it
In a survey of people recovering from anxiety, they found it most useful to remind themselves that:

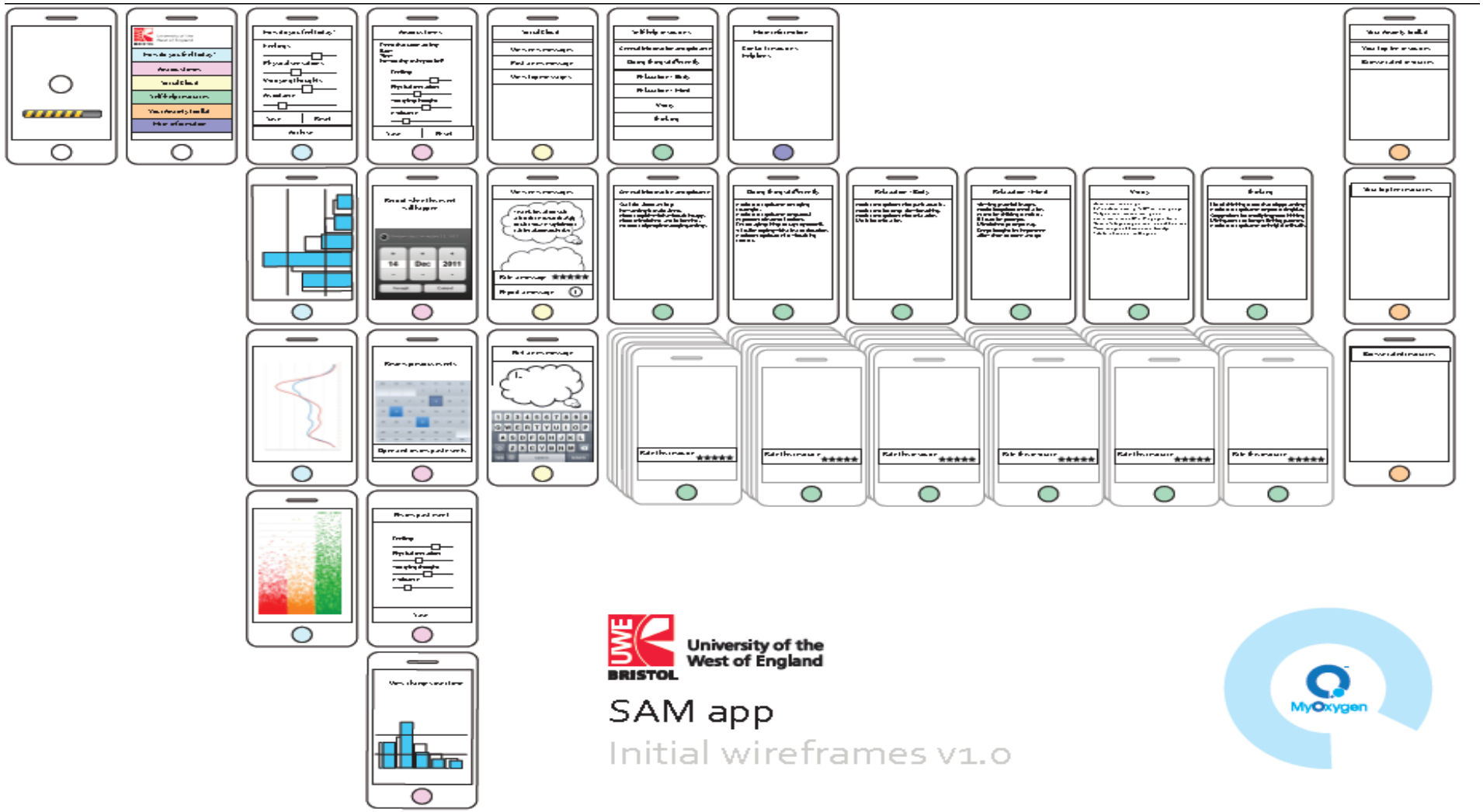
'I am not crazy and I will not go crazy.'
'My problem is very common. Many people live with it. I am not alone.'

‘The power to heal myself is within me. I can do it.’

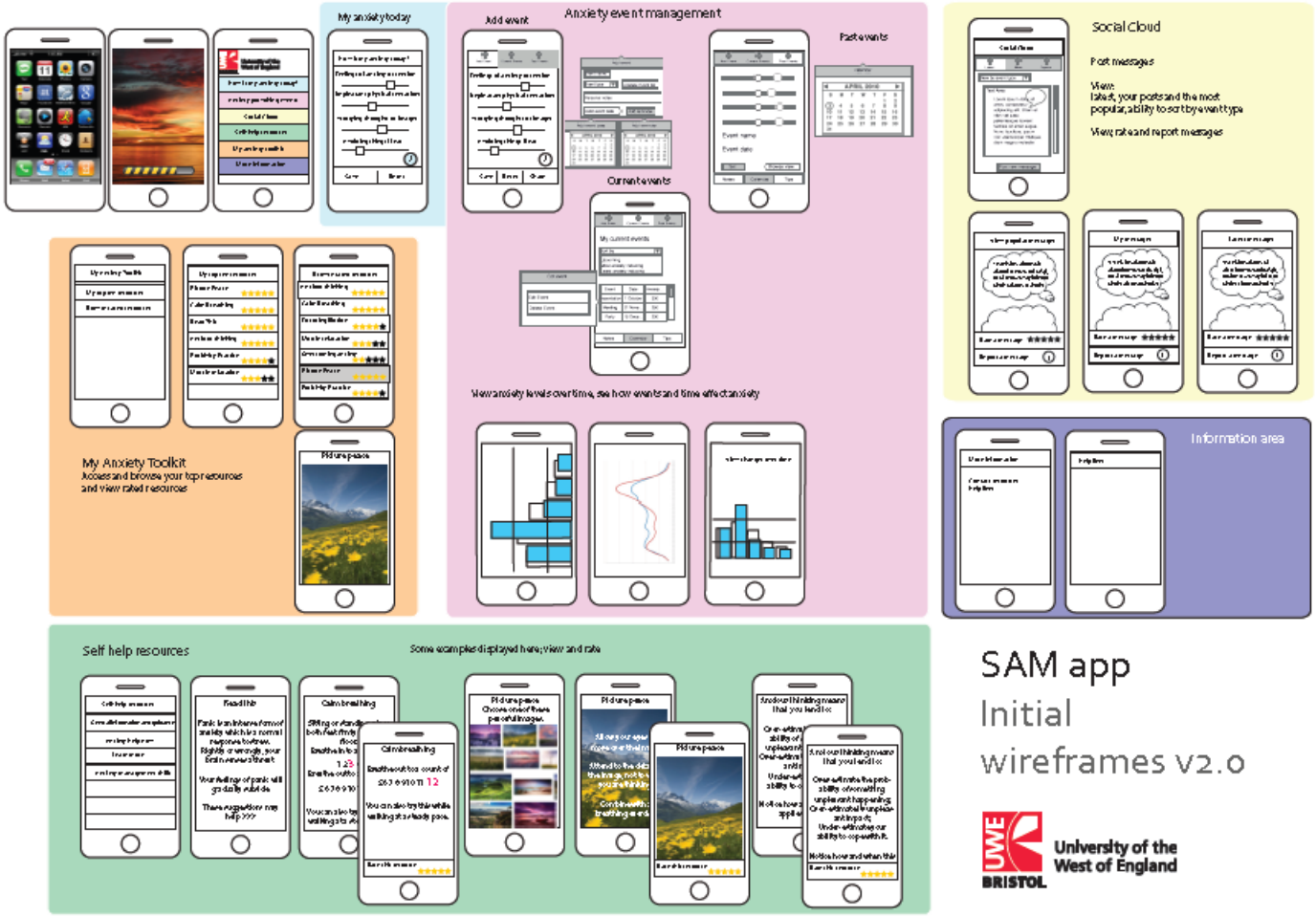
What would be helpful to say to yourself while you are learning to manage your anxiety?

Take small steps			
Managing anxiety in daily life			
CONTENT			
Take small steps: Checklist Start with low-anxiety situations Study anxiety responses Practice self-help skills Progress to slightly more anxious situations Record anxiety levels before and after Explore what works best Recognise progress Go slowly			
User guidance			
Study the information before taking action			
Type	Learning level (1-3)	Duration	Format
Action	3	1-5 mins	Text +

Appendix IIIc: SAM-app: Wireframes showing draft structure – V1



Appendix IIId: SAM-app: Wireframes showing draft structure – V2



SAM app
Initial
wireframes v2.0

University of the West of England
BRISTOL

Appendix IVa

SAM-App: Terms and Conditions of Use

1. This app is not a substitute for a qualified counsellor or therapist.

2. If you are already in therapy for anxiety-related concerns, you should discuss using the app with your therapist.

3. If you are unsure about the effects of using the app, or if you have concerns about your health and well-being, you should first consult your Doctor or Medical Adviser.

4. You should not rely on the material or information in this app as the basis for making any business, legal, personal, financial or other decisions.

5. You should consult an appropriate professional for specific advice.

6. University of the West of England, Bristol (UWE) makes no representations and gives no warranties as to the content of the material or the information contained in this app for any purpose.

7. Any reliance which you place on the material or information in this app is strictly at your own risk.

8. Certain links in SAM will lead to websites that are not under the control of UWE. When you activate these you will leave SAM. UWE has no control over and accepts no liability in respect of materials, products or services available on any website which is not under the control of UWE.

9. UWE is providing these links to you only as a convenience, and the inclusion of any link does not imply endorsement by UWE of such website.

10. Unless otherwise stated, all content on this app is copyright to the University of the West of England, Bristol, 2012.

11. To the fullest extent allowed by law, UWE accepts no liability for loss of data or interruption of self-help activities as a result of technical failure of this app, however caused.

12. To the fullest extent allowed by law, UWE accepts no liability for loss of data or interruption of self-help activities as a result of damage to, or loss or technical failure of the device to which this app is downloaded, however caused.

13. Anonymised data may be used for research purposes to inform development of the app and its functions.

14. This contract is subject to English law.

☐ **I agree to and accept these terms and conditions.**

Appendix IVb

1998 Data Protection Act, Consent to Process Personal Information

The personal information collected on this app will be processed by the University in accordance with the terms and conditions of the 1998 Data Protection Act.

We will be collecting the following information from users of this app:

1. User logins (pseudonyms) and passwords (encrypted)
2. Device identifiers (not unique but mobile type/operating system used)
3. User anxiety profiles over time (not shared)
4. User comments and ratings of self-help techniques (shared)
5. User-contributed descriptive tags for comments (shared)

We will hold your data securely and not make it available to any third party unless permitted or required to do so by law. The requested information will be used as follows:

To enable storage of your profile record for you to access as required;
To enable storage of social cloud comments and ratings for users to access as required;
To help us develop and update the app in response to how people use it.

The information will be stored on a UWE database rented from the Internet Service Provider (Vidahost). Storage and deletion of user information will be in accordance with the University's Records Management Policy.

The University Data Controller is William Marshall, Assistant Vice-Chancellor, Finance and Commercial Developments.

I agree to the University processing my personal data as described above
(Please tick the box to indicate your consent):

☐

Appendix IVc

Permissions to use copyrighted material

(All other self-help content is original or sourced from public domain compilation; its content and format is UWE copyright.)

AnxietyUK

Agreed that the app could provide a link to information on the AnxietyUK site or that we could use information from their site, with acknowledgement.

Centre for Clinical Interventions

Granted permission to use self-help material – see Legal folders 28.5.12.
223 James Street, Northbridge Western Australia 6003.
Tel: (08) 9227 4399 Fax: (08) 9328 5911
Email: info.cci@health.wa.gov.au http://www.cci.health.wa.gov.au/

Daniel Kahneman

Written permission to use focusing illusion quotation. Permission to use granted by email from Daniel Kahneman 26/6.

GET.gg Therapy Resources.

Written permission to use self-help information 21.3.12. Carol Vivyan, website owner.
Carol@get.gg http://www.getselfhelp.co.uk/index.html

MIND

It is permissable to provide a link to their resources.

Richard Kinnier

Professor of Counselling and Counselling Psychology, Division of Psychology in Education, Arizona State University. kinnier@asu.edu
Written permission to use anxiety affirmations 16.5.12.

Richard M. McFall

Emeritus Professor of Psychology, Indiana University. mcfall@indiana.edu
Written permission to use MMM given 12.3.12.

World Health Organisation

Written permission to use extracts from Mental Disorders in Primary Care (2008).
World Health Organization. *Mental Disorders in Primary Care, a WHO Education Package*, 1998. Written permission granted 8/6 re thinking errors examples.

Appendix IVd

University of the West of England
BRISTOL

FACULTY OF ENVIRONMENT AND TECHNOLOGY

RESEARCH ETHICS SUB-COMMITTEE

APPLICATION FOR ETHICAL REVIEW

This application form should be completed for any research involving human participants conducted in or by the University. "Human participants" include living human beings, human beings who have recently died (including body parts), embryos and foetuses, human tissue and bodily fluids, and human data and records.
Research should not commence until written approval has been received from the University Research Ethics Committee (UREC) or Faculty Research Ethics Sub-Committee (FRESC). You should bear this in mind when setting a start date for the project.

This form should be submitted electronically to the Secretary of the Faculty Research Ethics Sub-Committee, Research Office, Room 3Q29 (fetresc.enquiries@uwe.ac.uk) together with all supporting documentation (see below). A signed hard copy of the application form should also be submitted.

You are advised to read the guidance at http://rbi.uwe.ac.uk/intranet/research/ethics/ on 'How to complete an application for ethical approval' in conjunction with this form.

Please provide all the information requested and justify where appropriate – the spaces will expand to provide additional space.

For further guidance please contact Jane Newton or Carolyn Webb in the Faculty Research Office at fetresc.enquiries@uwe.ac.uk, or telephone 0117 328 3102

Project Details:

Project title	**Development of a mobile phone app for anxiety: Usability trials**
Project funder	UWE Strategic Development Fund
Proposed project start date	1 July 2012
Anticipated project end date	31 October 2012

Applicant Details:

Name of researcher (applicant)	Paul Matthews
Faculty and School	FET, CSCT
Status (Staff/ Postgraduate Student/ Undergraduate Student)	Staff
Email address	Paul2.matthews@uwe.ac.uk
Contact postal address	3P21, Frenchay Campus

Contact telephone number	0017 32 83353

(for completion by FETRESC) *Date received:* *FRESC reference number:* *Scrutiny – Cttee/CA* *Outcome:* *Applicant informed:*

For All Applicants:		
Has external ethics approval been sought for this research?	~~Yes~~	No
If yes, please supply details		

Name of co-researchers (where applicable)	Phil Topham, Praminda Caleb-Solly
For student applicants only:	
Name of Supervisor (for PG and UG student applicants)[1]	
Supervisor's email address	
Supervisor's telephone number	
Details of course/degree for which research is being undertaken	

[1]For student applications supervisors should ensure that all of the following are satisfied before the study begins:
The topic merits further research
The student has the skills to carry out the research
The participant information sheet or leaflet is appropriate
The procedures for recruitment of research participants and obtaining informed consent are appropriate

Supervisor comments:	

Details of the proposed work:

1 Aims and objectives of, and background to the research:

This project is a progression from a HEAT-funded pilot project: *Self-help for student social anxiety: Development & evaluation of a mobile phone prototype.* Faculty Research Ethics Sub-Committee reference number: FETRESC 10-11/11.

The mobile phone app we are developing will provide self-help options to help students and others to learn to manage their anxiety across a range of academic, occupational and social situations.

The aim of the trials for which ethical approval is sought is to obtain user feedback on the credibility, usability and other non-clinical features of the app at critical stages of its development towards a full working version.

The overall therapeutic effectiveness of the app will be evaluated separately after launch and through appropriate controlled studies.

2 Research methodology to be used (include a copy of the interview schedule/ questionnaire/observation schedule where appropriate):

The trials will be conducted through a staged process of testing and written review by students, practitioners and other potential users. All testing will be conducted online through the participants' own smartphones. Participants wil be asked to review features and usability of the app against listed criteria. We estimate that there will be 4 to 6 trials with each trial taking up to 20 minutes to complete review and written reporting. To avoid habituation effects, participants may be used selectively to evaluate specific stages or features of the app.

3 Selection of participants:
Will the participants be from any of the following groups?*(Tick as appropriate)*

- ☐ Children under 18
- ☐ Adults who are unable to consent for themselves[2]
- ☐ Adults who are unconscious, very severely ill or have a terminal illness
- ☐ Adults in emergency situations
- ☐ Adults with mental illness (particularly if detained under Mental Health Legislation)
- ☐ Prisoners
- ☐ Young Offenders
- ☐ Healthy Volunteers (where procedures may be adverse or invasive)
- ☐ Those who could be considered to have a particularly dependent relationship with the investigator, e.g. those in care homes, medical students
- ☐ Other vulnerable groups
- x None of the above

([2] Please note, the Mental Capacity Act requires all intrusive research involving adults who are unable to consent for themselves to be scrutinised by an NHS Local Research Ethics Committee – Please consult the Chair of your Faculty Research Ethics Sub-Committee or Amanda Longley or Alison Vaughton (RBI) for advice)

If any of the above applies, please justify their inclusion in this research

Note: If you are proposing to undertake research which involves contact with children or vulnerable adults you will generally need to hold a valid Criminal Records Bureau check. Please provide evidence of the check with your application.
N/A

4 Please explain how you will determine your sample size/recruitment strategy, and identify, approach and recruit your participants. Please explain arrangements made for participants who may not adequately understand verbal explanations or written information in English.

We will obtain a self-selecting opportunity sample from past and present UWE students, therapeutic practitioners and other potential users. Some participants are already involved in consultation processes about the clinical content of the app and have volunteered their assistance for the trials. Others will be recruited by internal advertisement (see attached example).

We estimate that we shall need 15-20 participants for the trials. We aim to achieve a balance of age and gender with a greater proportion of females given their increased vulnerability to anxiety.

For these trials we are not making specific provision for non-English speakers other than that which is integral to manufacturers' software. Both language as well as other cultural and accessibillity issues will be addressed after the initial version of the app has been launched.

5 What risks (eg physical, psychological, social, legal or economic), if any, do the participants face in taking part in this research and how will you overcome these risks?

These usability trials are solely concerned with usability not with the the therapeutic impact of the app. We will not be asking participants to test out and evaluate the self-help content for therapeutic effectiveness so we do not anticipate any adverse effects. The information and consent forms (attached) make it clear that participants can withdraw from participation, for any reason, at any stage of the trials process.

The trials will be overseen by the UWE app development team who previously conducted workshops and field trials with UWE students for the prototype app.

6 How will you obtain informed consent from the participants (include copies of participant information sheets and consent forms)? What arrangements are in place for participants to withdrawn from the study?

Potential participants will be provided with information about the study prior to being asked to complete and sign a consent form.

Participant Information sheet and Consent Form are attached.

7 How have you addressed the health and safety concerns of the participants, researchers and any other people impacted by this study, that are greater than those encountered in normal day to day life?

We do not anticipate any particular health and safety concerns.

8 Please explain how confidentiality will be maintained:

Trials participants will be using their own smartphones to download and evaluate the app. Their smartphone numbers will, necessarily, be known to the app developer but no personal identification or other personal information will be known to the app developer or any other trials participant.

The app developer has signed a non-disclosure agreement with UWE to ensure the confidentiality of all information relating to the development of the app, including information relating to personnel involved in the project.

Particpants will not be asked to disclose any personal or sensitive information in the course of the user trials.

9 Please describe how you will store information collected in the course of your research and maintain data protection:

All data will be encrypted and stored in password-controlled files. Data will be stored securely on a database server and retained from the completion of the project + 6 years as per UWE guidelines for research data storage.

10 How will the results of the research be reported and disseminated? *(Select all that apply)*

☒ **Peer reviewed journal**
☒ **Conference presentation**
☒ **Internal report**
☐ **Dissertation/Thesis**
☐ **Other publication**
☒ **Written feedback to research participants**
☐ **Presentation to participants or relevant community groups**
x Other (Please specify below)

Although data from the user trials may be used in the above dissemination media, its primary value is in guiding the optimal usability of the app i.e. it is not research data in the traditional academic sense.

11 Are there any other ethical issues that have not been addressed which you would wish to bring to the attention of the Faculty and/or University Research Ethics Committee?

No other issues known.

Checklist
Please complete before submitting form

	Yes/No
Is a copy of the research proposal attached?	**-**
Does the project involve human participants?	**-**
Have you explained how you will select the participants?	**-**
Have you described the ethical issues related to the well-being of participants?	**-**
Have you considered health and safety issues for the participants and researchers?	**-**
Have you included details of data protection including data storage?	**-**
Have you described fully how you will maintain confidentiality?	**-**
Is a participant consent form attached?	**-**
Is a participant information sheet attached?	**-**
Is a copy of your questionnaire attached?	**-**
Where applicable, is evidence of a current CRB check attached?	**-**

Declaration

Principal Investigator	Paul Matthews
Signed	
Date	
Supervisor or module leader (where appropriate)	
Signed	
Date	

The signed form should be emailed to the Secretary of the Faculty Research Ethics Committee at fetresc.enquiries@uwe.ac.uk . Any application by/on behalf of a student must be accompanied by an email from the student's supervisor confirming the content of the form. A paper copy with signatures should be sent to Carolyn Webb in the Research Office, 3Q29, School of the Built and Natural Environment, Frenchay Campus within 5 working days of the electronic version.

Appendix IVe

University of the West of England
BRISTOL

FACULTY OF ENVIRONMENT & TECHNOLOGY

FACULTY RESEARCH ETHICS COMMITTEE

Your ethics application was considered under Chair's Action.

Committee Reference No.	FETREC11-12/32
Name of Applicant	Paul Matthews
Home Faculty	FET
Title of Proposal	Development of a mobile phone app for anxiety: Usability trials
Outcome	The Chair is content to **approve** the application subject to the following: • You notify Faculty Research Ethics Committee in advance if you wish to make significant amendments to the original application; • You notify the Faculty Research Ethics Committee if you terminate your research before completion • You notify the Faculty Research Ethics Committee if there are any serious events or developments in the research that have an ethical dimension; • Any changes to the study protocol, which have an ethical dimension, will need to be approved by the Research Ethics Committee. You should send details of any such amendments to the relevant committee with an explanation of the reason for the proposed changes. Any changes approved by an external research ethics committee must also be communicated to the relevant UWE committee. • Although in many circumstances there would be a need to address the conditions highlighted by the reviewers their comments begin to highlight potentially more serious issues concerning recruitment and the distinction between usability and content.

	Whilst there are undoubtedly perspectives from which such a distinction exist from the perspective of users these would tend towards being 'academic' in nature. • Given that participants are 'self-selecting' it begins to suggest that those who suffer from anxiety are far more likely to be interested in the study. Indeed it may be the case that the validity of such research would require an understanding of the issues brought in from such a perspective. In this light, the point raised by reviewer 1 concerning links to further assistance appears apposite but to address only this would be to miss the underlying issue of the therapeutic content which could appear to have been passed over with the notion that it will be examined another day. Whilst a clinical evaluation may be made at a later date, this does not mean to say that issues of this nature are not present at this stage. • The tests themselves appear to be conducted in everyday situations rather than in the lab; suggesting the app would be used in situations where the user is suffering from anxiety…. given this the proposed distinction between use and content is problematic. • Whilst the study would claim not to deal with students with mental health problems the selection method does not exclude the possibility of their recruitment. If this were to be the case the ethical scope of the research becomes very different…. As a result of these concerns we will need to see and approve details concerning the points raised above before work can begin. This should primarily address issues pertaining to recruitment and how a differentiation between use and content can be justified using the proposed methods. 27th July 2012 • The team has addressed the concerns raised by the committee. • Prior to commencement we would ask that you correct the typo/placeholder statement made under point 2 of the Participant Information sheet to reflect approval by the FET's ethics committee. This small change does not need to be referred back to the committee. *Please note:* The UREC is required to monitor and audit the ethical conduct of research involving human participants, data and tissue conducted by academic staff, students and researchers. Your project may be selected for audit from the research projects submitted to and approved by the UREC and its committees.

Comments	The following additional comments were reported by the reviewers of your application. They are provided for information and may be helpful for you to consider as you finalise your methodology and implement the research. **Reviewer 1** Recommend approval subject to conditions This project and application has been well prepared. A couple of minor recommendations and comments: Recommendation 1 Given the subject matter, the team should build in referral links to independent support groups/material (e.g. Mind?) should participants experience anxiety and the app not help them Recommendation 2 Although covered in the Information sheet, the flyer should flag more clearly confidentiality and opportunity for participants to withdraw. Recommendation 3 Surely cultural accessibility issues should be addressed in the trial not after first app launch as suggested in the proposal? Comment: Gendered assumption - do women experience anxiety more than men or simply report/ own up to it? **Reviewer 2** Recommend approval subject to conditions This is a thoroughly considered proposal in all key respects – participant selection (voluntary), informed consent, risks, confidentiality, etc. As such, it requires little change. It builds on an existing project. The information sheet is a little jargon heavy. I don't think the average student will know the difference between 'user trials' and 'impact evaluation' and the explanation here is not quite sufficiently clear. I think participants should be reassured in plainer English that the project is designed to test out the 'technical' as opposed to 'therapeutic' aspects of the app.

Date 27 July 2012

Signed

[redacted]

Chair of Faculty Research Ethics Committee

Appendix IVf

SAM-app usability evaluation programme

Application to University Research Ethics Committee: response to Chair re concerns expressed by ethical reviewers

Dear Dr.[redacted]

Re: Ethics application FETREC11-12/32. Development of a mobile phone app for anxiety: Usability trials

Thank you for your consideration of this ethical application and its conditional approval. The project team ([redacted]) have given careful consideration to the points raised by yourself and by the application reviewers.

Our aim is to develop the app through adequate usability testing with representative participants in compliance with BSI standard BS EN ISO 9241-210:2010 (attached).

We accept that there is a diffuse boundary between the effects of usability and content (as between technical and relational factors in face-to-face therapy) and indeed would not wish it to be otherwise for the ongoing use of the app. We need to ensure that our brief user trials do not cross this boundary to any clinically significant extent.

It is reasonable to assume that those who suffer from anxiety may be interested in the user trials; also those who study or practice psychology where there is a related interest in mobile technology, self-help and anxiety management. The anxiety response is integral to human psychology and so our selection procedure should aim to discriminate between those whose anxiety is routine and manageable, and those whose anxiety is severe and problematic.

We will advise any prospective participant who regards their anxiety as severe, or who is considering or receiving treatment for anxiety, that they should not participate in the trials. We will ask for a negative confirmation of these conditions from prospective participants as part of the consent procedure.

We will make it clear to prospective participants that we are not offering trials of a working technology for anxiety management. Given this consideration and the limited duration of trial user engagement with the app (estimated to be 10-20 minutes to include their written comments), we propose that any psychological impact arising from the usability evaluation of the app features is likely to be both incidental and transient.
Nonetheless, we will ensure that participants are provided with contact information for relevant support services.

With regard to Recommendation 3 from Reviewer 1 re cultural accessibility:
In the interests of timely provision for student support, we have worked on the principle of providing a basic self-help facility that can be enhanced if it is a success. We are also of the view that there is currently insufficient research on culture and app design to make cost-effective decisions that satisfy a culturally diverse student population. The use of cross-cultural icons may help to increase accessibility while the app will be meeting industry standards for accessibility with regard to visual appearance.

With regard to the query about women and anxiety (gendered assumption) by Reviewer 1:
Staistically, women present more frequently with the signs and symptoms of anxiety that the app is designed to address. There is evidence that women may be more sensitive than men - and therefore more vulnerable to anxiety about - some (e.g. interpersonal) situations. Social conditioning rather than differences in autonomic processing is thought to account for differences in how men and women respond to anxiety-provoking threats.

Please find attached the revised participant information and consent forms with revisions and additions highlighted. We hope that you will find these adjustments acceptable and appropriately responsive to your review.

With best wishes,

[redacted]

Senior Lecturer
Department of Computer Science and Creative Technologies

Appendix Va

Evaluation Plan for SAM

Date: 25th October 2012
Version 2

1 Introduction

The evaluation of the SAM prototypes will be conducted in stages as part of an iterative user-centred development process.

1.1 Aims

- Find any poor usability issues and interaction problems for feedback to developers
- Gather quantitative and qualitative information on users' priorities for alterations and additions to the next version of the prototype.
- Gather qualitative assessments of users' responses to SAM design concepts – users' expectations in relation to the range of available features

This document describes each of stages, the scope (evaluation criteria) and method. Each stage will serve to inform the subsequent development stage, and the focus and scope will be based on the current status of the prototype implementation and functionality.

1.2 Analysis

In order to conduct a comprehensive analysis of each of the evaluation stages, there will be careful review of the various elements of the data gathered. For field trials this will include data that is logged by the system during the interaction, and for the lab test, this will also include audio and video recording of the sessions.

1.3 Outcome

After each evaluation stage we will produce a report with recommendations for improvements and any updated system requirements.

1.4 Summary of Evaluation stages

ID	Aims	Methods	Duration
1	**Icon evaluation**	Web Questionnaire with icon options issued to participants via email.	1 week
2	**Expert based evaluation** – Usability of GUI + Features – conformance to requirements	Expert evaluation of Hi-fi prototypes and task-flow diagrams	1 week
3	**User-based Concept/design testing** (Hi-fi simulation which enables walk-through adequate)	Online Web Questionnaire with Hi-Hi prototypes – consideration of ease of understanding of concepts, access to features (navigation, affordance, mapping, labelling, content)	2 weeks concurrent stage 4
4	**Lab-based User testing** (Hi-fi simulation which enables walk-through adequate but working prototype preferred)	Task-focussed think-aloud cooperative evaluation	2 weeks concurrent stage 3
	Building working prototype – estimated 4 weeks		
5	**User Field trials** – Version 1 working prototype	Diary/journal logging of issues and thoughts on usage over a 2 week period. App data/interaction logging. Post-trial interview	2 weeks
6	**Lab-based User testing –** Version 2 working prototype	Task-focussed think-aloud cooperative evaluation	2 weeks concurrent stage 7
7	**User Field trials** – Version 2 working prototype	Diary/journal logging of issues and thoughts on usage over a 2 week period. App data/interaction logging. Post-trial interview.	2 weeks concurrent stage 6
			8 weeks

Table 1

2 Evaluation stages 1-n

Details for each evaluation stage will be described in this format.

2.1 Scope of the evaluation

2.2 Evaluation criteria

2.3 Method

2.3.1 Participants

2.3.2 Mode of evaluation and reporting

2.3.3 Session length

2.4 Materials

2.4.1 Expected state of the prototype

2.4.2 Questionnaire

2.4.3 Instructions

2.5 Timescale

3 Key performance indicators

The following KPI will be selected at the different stages as appropriate:

3.1 Lab-based testing

- Level of ease of use of the overall app and individual tasks (completion success and problems encountered)
- Level of ease of use (ergonomic) of the input mode(s) for the functions/components
- Ease of configurability and personalisation of function settings
- System response time for the component/function to user input
- Time for error recovery
- User rating of function output/feedback (in relation to quality, utility and comprehensibility)

3.2 Field trials

- Level of user satisfaction
- Level of function usage by the user
- Level of acceptance by the stakeholders (primary and secondary users)
- Level of ease of use of the overall app and individual tasks (completion success and problems encountered) in different contexts of use
- Level of ease of use (ergonomic) of the input mode(s) for the functions/components in different contexts of use
- Level of effectiveness of the tips (do they meet expectations?)
- Success of system to adapt to change in environment (e.g. background noises, lighting)
- Ease of configurability of function settings
- System response time for the component/function to user input
- Time for error recovery
- User rating of function output/feedback (in relation to quality, utility and comprehensibility)

4 Lab Testing Protocol

4.1 Informed consent and explanation of session (5 minutes)

- Very short introduction and review of information sheet
- Overview of the session and task scenario sheet

4.2 Pre-test interview (5 mins)

A preliminary discussion in order to assess

- their experience with mobile technology is
- some basic demographic data

Personal details:

1. Age, Gender, Degree/year of study(if student), occupation
2. List technologies used on a regular basis (specifically mobile devices)

4.3 Task Scenarios (15 mins)

Basic interaction tasks:

- Update your current anxiety levels
- Add a situation
- Edit a previously saved situation – change date and situation type
- View a tip(s); Add to favourite; Share; Rate;
- View and explore anxiety level graph

4.3.1 Scenario 1

4.3.2 Scenario 2

4.4 Post-task discussion (10 mins)

- What did you like and dislike?
- What would you change?
- What problems do you envisage using it in an everyday context?

5 Post Field-Trials Questionnaire

5.1 Evaluation criteria from PT – feedback from users

Focus on therapeutic aspects
Rate on 0-7 scale?

- Friendly
- Conveys warmth
- Containing or supportive
- Invites engagement
- Instils hope or optimism
- Conveys realistic expectations
- Conveys appropriate guidance and cautions
- Conveys understanding of anxiety
- Credible
- Relevant
- Adult communication style
- Clear communication style
- Straightforward
- Pragmatic
- Appears reliable
- User-focused
- Offers flexible pathways to self-help
- Easy to navigate
- Encourages persistence
- Rewards achievement
- Appears useful
- Likely to help with managing anxiety
- Appears ethically sound
- Would be happy to use
- Would be happy to recommend

- Have concerns that…….
- Would recommend that…..

5.2 Further Usability and User Experience criteria

5.2.1 Level of ease of use (ergonomic) of the input mode(s) for the functions/components

How is it physically interacting using the touch screen for the different functions/features?

Very easy	Easy	Neutral	Difficult	Very difficult

What is it like working out what to do when interacting with the touch screen?

Very easy	Easy	Neutral	Difficult	Very difficult

How is it physically starting up and using the app in different contexts?

Very easy	Easy	Neutral	Difficult	Very difficult

5.2.2 User rating of function output/feedback (in relation to quality, utility and comprehensibility)

For each key app feature:
What do you think of the quality?

Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied

What do you think of the usefulness?

Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied

What do you think of the comprehensibility?

Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied

5.2.3 Acceptance criteria

For each/some of the following statements, I...

Agree strongly	Agree	Neither agree or disagree	Disagree	Disagree strongly

Performance Expectancy

- Using the app in my everyday life would enable me to cope with my anxiety better

Effort expectancy

- Learning to use the app would be easy for me
- I would find the app easy to use in situations where I experience anxiety
- I would find the app flexible to interact with in different everyday situations
- I believe that it is easy to get the app to do what I want it to do

Social influence

- People that influence my behaviour think that I should use the app
- People that are important to me think that I should use the app

Facilitating Conditions

- I have control over using the app
- I have the resources necessary to use the app
- I have the knowledge necessary to use the app
- I think the app fits well with the way I live
- Guidance was available to me in the selection of the app
- Specialised instruction concerning the features of the app were available to me
- A specific person/group is available for assistance with app

6 Function usage analysis (Field trials)

6.1 MyOxygen needs to enable data logging of:

- App features accessed and times
- Reminders set and response to reminders
- Anxiety profile scores and times
- Tips viewed, tagged, rated and shared
- System errors

6.2 Video analysis of lab tests

- Vocal expressions (are they impressed, surprised, puzzled, positive/negative, do they seem comfortable, relaxed, anxious, frustrated?)
- While interacting, when do they need prompts?
- Do they know which functions are available?
- Do they know what to do to activate these functions?
- Nature and number of recovered errors
- Nature and number of unrecovered errors
- Views of “instruction” information
- Appropriateness of any default values for settings
- Do they understand the tips and instructions? Any confusions or uncertainties?

7 Usage/Experience Logging by the User

Instructions
Please use the app over the next two weeks, as often as you want to. It will be useful to consider a maximum and minimum frequency of logging your anxiety levels, which you think are suitable for yourself.
We are also interested in investigating the following questions to help us improve the app

- When do you find you are most likely to log your anxiety levels?
- How do you feel after you have logged your anxiety levels?
- How does viewing the chart make you feel?
- To what extent do you think that the app will might help someone manage their social anxiety?
- Do you find the app convenient to use?
- What information would you consider sharing with others? Who would you like to share the information with?
- How could we develop the app so that it is more effective in helping you managing a person's social anxiety?

It order to help us with these questions, it will be great if you could keep a diary or log, making notes about how you are feeling whenever you use the app.

Appendix Vb

University of the West of England
BRISTOL

FACULTY OF ENVIRONMENT AND TECHNOLOGY

Self-help for anxiety: Development of a mobile phone app

INFORMATION FOR TRIAL USERS

1. Invitation to participate

You are invited to take part in user trials of a mobile phone app as it is being developed. Before you decide whether to take part, please read this information sheet to understand what is involved.

2. What is the aim of the project?

Following trials of a protoype, the university has decided to fund the development of an app to provide self-help for anxiety. The app will be made available to UWE students as part of the university's support for student well-being. It will also be available, on Android and iPhones, to other students and the general public.

This development project and its associated procedures have been approved by the university's Faculty of Environment and Technology Research Ethics Committee.

3. What are user trials?

It is essential that the app is easy and acceptable to use. This is achieved by inviting people to try out and comment on features of the app at successive stages of its development. This enables modifications and improvements to be made that reflect what users want and reduces the risk of costly revisions after it is completed. We call these user trials.

User trials are different from clinical trials. Clinical trials are conducted with people who suffer from anxiety in order to measure the effectiveness of the app in helping to reduce anxiety. These trials will be conducted after the app has been completed and its usability established.

If you choose to participate in these user trials, you should not aim to use the developing app as a tool for anxiety management.

4. Why have I been approached to take part?

We are asking a range of people to help with the user trials: Students because they are the intended main users of ther app. Advisers and counsellors because they are involved in supporting students and will have a view on what is useful. Practitioners of psychological therapies because they may wish to recommend use of the app.

5. Are there any reasons why I should not take part in the trials?

a. If you are considering or receiving treatment or therapy for anxiety or an anxiety-related condition, we recommend that you do not take part in the user trials.
b. If you are <u>not</u> receiving treatment or therapy for anxiety or an anxiety-related condition but consider that your anxiety is problematic, we recommend that you do not take part in the trials. You might consider consulting your doctor or making use of one of the services listed below.

6. What will I be asked to do?

If you agree to take part you will be sent further information about the project and a set of criteria for providing feedback.
For each trial you will be emailed a link to download the app (iPhone) or as an attachment email (Android).
Each user trial is focused on a set of pages of the app. Each page of the app has a button which opens a comments page.
Your task is to view and explore the trial pages and to provide feedback on their usability, using the criteria provided. You may also add suggestions for modification or improvement.
You then send your comments back to the developers at the email/web address provided.
Alternatively, or in addition to the above, you can choose to meet with one of the project team to talk through and evaluate the current features of the app in person if you wish. The session will be organised on Frenchay Campus at a mutually agreeable time. This option will include audio recording of your comments and video recording of your hands as they navigate the app screens.

7. How long will it take?

The procedure described in (5) above will be repeated 4 to 6 times as the app is developed. People vary in how long they like to spend on user trials but we suggest that 20 minutes should be sufficient for each trial.

We hope to be conducting most of the user trials between June and September of this year. The overall duration will depend on the adjustments that have to be made based on the feedback we receive.

8. Can I change my mind about taking part?

We appreciate that, for whatever reasons, people may choose to withdraw after intially agreeing to participate. If you decide to withdraw, we ask that you let us know as soon as possible so that we can recruit a replacement.

If you withdraw mid-way through the trials, you may also prefer that we do not use the information already supplied by you. You should be aware that, as the feedback from you is transmitted direct to the app developer for them to act on, it may be difficult to withdraw that information.

9. Will my contribution be confidential and anonymous?

a. Your identity as a participant will be protected and unknown to other trial users and non-participants. However, your identity, email/phone address/number will be known to the project team and those members of the app development team who are acting on your feedback. The app developers have signed a non-disclosure agreement with the University which ensures that all information relating to the project, including information about trials participants, is treated in confidence.

b. Personal information that you provide about your psychological reactions to, experience of or opinions about the app will also be treated confidentially and knowledge of them restricted to team members as above.

c. The feedback from all trial users will be collated anonymously by the project team and may be used for subsequent research and development activities related to or arising from this project; this may involve other academic staff colleagues.

d. Your responses will not be identifiable in any project report or published article although anonymous quotes from participants may be used for illustration. Should that be the case, you will be shown the draft version so that you may withdraw or modify any such quotations.

e. All university staff have a commitment to the confidentiality of personal data and adhere to the university's guidelines for the ethical practice of research and user trials; these can be obtained from the project team.

f. All information supplied by you will be securely stored, physically and/or electronically, and will be destroyed six years after the app has been launched (estimated to be October 2012).

10. Are there any disadvantages to taking part in the project?

If the requirements and conditions outlined here are acceptable we do not anticipate that there will be any disadvantages arising from your participation.

11. Are there any advantages to taking part in the project?

There are no material advantages to participation but you will have made a useful and necessary contribution to the development of new technology for supporting mental health and well-being.

12. What if I have queries or concerns?

If you have further queries or concerns about the project, please contact Phil.Topham@uwe.ac.uk.

13. How do I give my consent to participate as a trial user?

If you are clear about what trial user participation involves and if you are willing to participate, please read and sign the attached consent form.

14. What sources of help and support for anxiety are available to me?

Your General Practitioner.

UWE Counselling Service:
http://www1.uwe.ac.uk/students/healthandwellbeing/wellbeingservice/counselling.aspx

AnxietyUK: http://www.anxietyuk.org.uk/?gclid=CMjUvbz17bACFUcKfAodm0Erxw

MIND: http://www.mind.org.uk/

NHS D-I-Y Therapy:
http://www.nhs.uk/Livewell/counselling/Pages/selfhelptherapy.aspx

Appendix Vc

University of the West of England
BRISTOL

FACULTY OF ENVIRONMENT AND TECHNOLOGY

Self-help for anxiety: Development of a mobile phone app

Consent to participate in user trials

Please indicate your agreement with each of these statements:

I have read and understood the information provided.	
I confirm that I am not suffering from severe or problematic levels of anxiety or an anxiety-related condition.	
I agree to the arrangements regarding the confidentiality of information that I provide.	
I understand that I may withdraw from the user trials at any time.	
I am willing to participate in the user trials of the mobile phone app.	

SIGNED:

NAME IN CAPITALS:

DATE:

EMAIL ADDRESS:

Please return this form:
By email to Phil.Topham@uwe.ac.uk
Or
By mail /internal UWE mail to:
Phil Topham, Room 2L6, Department of Psychology, Frenchay Campus, Coldharbour Lane, Frennchay, Bristol, BS16 1QY.
You may wish to keep a copy for your records.

Thank-you for your help with this project.

Appendix Vd

Sam Interactive Prototype Evaluation Template 2 – Copy

Thank you for taking part in the SAM-App Usability Evaluation Study.

As part of our initial design process, we would like feedback on the usability of the interaction on the prototype of the app. This information will help ensure that we identify interaction problems and make SAM-App more user centric.

This survey has 9 questions. Some questions have been categorised into parts for investigating further corelations (if any) in the interaction, labelling and navigation aspects on some SAM-App features available.

All questions are mandatory and progress in succession. This survey is anonymous and voluntary.

This is the main SAM screen. You will be asked to refer back to it throughout the survey.

Q1 (a). Visit the main screen and find the instructions on how to use the SAM app. Which icon did you click on first to find the instructions?

- ❍ How's my anxiety today? (1)
- ❍ Anxiety tracker (2)
- ❍ Social Cloud (3)
- ❍ Self-help with SAM (4)
- ❍ Working with SAM (5)
- ❍ My anxiety toolkit (6)
- ❍ Help for anxiety NOW (7)
- ❍ Things that make me anxious (8)
- ❍ Don't Know (9)

Q1 (b). Go back to the main screen and Click on the “Working with SAM” icon. Review the instructions. Did you find the instructions clear and easy to understand?

- ❍ Very Clear (1)
- ❍ Clear (2)
- ❍ Not so clear (3)
- ❍ Not clear at all (4)

Q1 (c). Did you realise that there were 9 screens of instructions?

- ❍ Yes (1)
- ❍ No (2)
- ❍ Accidentally Discovered (3)

Q1 (d). Please note any additional comments you have on these instructions.

Q2 (a). This App allows people to record their anxiety levels. Which icon would you click to record your anxiety levels?

- ❍ How's my anxiety today? (1)
- ❍ Anxiety tracker (2)
- ❍ Social Cloud (3)
- ❍ Self-help with SAM (4)
- ❍ Working with SAM (5)
- ❍ My anxiety toolkit (6)
- ❍ Help for anxiety NOW (7)
- ❍ Things that make me anxious (8)

Q2 (b). Click on the “How’s my anxiety today” icon. Please tell us what you would do if you wanted to record that were not feeling very anxious at this time.

Q2 (c). Would you like a help facility offering further explanations regarding each of the anxiety profile parameters?

- ❍ Yes (1)
- ❍ No (2)

Q2 (d). If Yes, please state which ones confused you.

- ❑ Feelings of anxiety and tension (1)
- ❑ Worrying thoughts (2)
- ❑ Unpleasant physical sensations (3)
- ❑ Avoiding things I fear (4)
- ❑ All the above (5)

Q3. Starting from the main screen, imagine that you would like some tips/techniques/exercises to help cope with your anxiety, Where would you click?

- ❍ How's my anxiety today? (1)
- ❍ Anxiety tracker (2)
- ❍ Social Cloud (3)
- ❍ Self-help with SAM (4)
- ❍ Working with SAM (5)
- ❍ My anxiety toolkit (6)
- ❍ Help for anxiety NOW (7)
- ❍ Things that make me anxious (8)

Q4 (a). Go to the “Self-help with SAM” screen and click on each of the icons on this screen in turn to reveal the tips/techniques in each category. Would you say that these were well organised?

- ❍ Yes (1)
- ❍ No (2)

Q4 (b). Review the details of each of the tips in the “Thinking and Anxiety” category. Did you find the information meaningful?

- ❍ Very Meaningful (1)
- ❍ Meaningful (2)
- ❍ Somewhat meaningful (3)
- ❍ Not at all meaningful (4)

Q4 (c). Please note any additional comments you have on these tips.

Q5. The SAM app provides techniques to help you do some mental relaxation exercises. Try to find an easy to do mental relaxation exercise that won't take more than 5 mins. Please try to find such an exercise within the app and write its name in the text box below.

Q6 (a). Review the details of each of the tips in the "Relaxation Physical" category. Did you find the instructions easy to follow?

- ❍ Very easy (1)
- ❍ Easy (2)
- ❍ Somewhat Easy (3)
- ❍ Neutral (4)
- ❍ Somewhat Difficult (5)
- ❍ Difficult (6)
- ❍ Very Difficult (7)

Q6 (b). Please note any additional comments you have on these tips.

Q7. Try locating the Picture peace exercise. Assuming that you found it previously for Q5, indicate how easy or difficult it was to find again.

- ❍ Very Easy (1)
- ❍ Easy (2)
- ❍ Somewhat Easy (3)
- ❍ Neutral (4)
- ❍ Somewhat Difficult (5)
- ❍ Difficult (6)
- ❍ Very Difficult (7)
- ❍ Did not find previously (8)

Q8. Please rate the SAM app on the following attributes on a:Scale from 0 (Not at all) to 7 (Very much so)

	0 (not at all) (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	6 (7)	7 (Very much so) (8)
Is Friendly (1)	❍	❍	❍	❍	❍	❍	❍	❍
Seems containing or supportive (2)	❍	❍	❍	❍	❍	❍	❍	❍
Invited engagement (3)	❍	❍	❍	❍	❍	❍	❍	❍
Instils hope or optimism (4)	❍	❍	❍	❍	❍	❍	❍	❍
Conveys appropriate guidance and cautions (5)	❍	❍	❍	❍	❍	❍	❍	❍
Conveys understanding of anxiety (6)	❍	❍	❍	❍	❍	❍	❍	❍
Credible (7)	❍	❍	❍	❍	❍	❍	❍	❍
Clear communication style of content (8)	❍	❍	❍	❍	❍	❍	❍	❍
Straightforward (9)	❍	❍	❍	❍	❍	❍	❍	❍
Offers flexible pathways to self-help (10)	❍	❍	❍	❍	❍	❍	❍	❍
Easy to navigate (11)	❍	❍	❍	❍	❍	❍	❍	❍
Appears useful (12)	❍	❍	❍	❍	❍	❍	❍	❍
Appears ethically sound (13)	❍	❍	❍	❍	❍	❍	❍	❍
Would be happy to use (14)	❍	❍	❍	❍	❍	❍	❍	❍

Q9. Please note any additional points in regards to:I have concerns that:

I would recommend that:

Appendix Ve User evaluation of therapeutic qualities

Instructions: For each statement about SAM, below, put an 'X' opposite to indicate how much you (dis) agree with it.		**Disagree strongly**	**Disagree**	**Neither Agree nor Disagree**	**Agree**	**Agree strongly**
1	Has a friendly feel to it.					
2	Instils hope or optimism.					
3	Uses an adult communication style.					
4	Makes clear what I can expect of it.					
5	Provides appropriate guidance and cautions.					
6	Appears credible, something I can rely on.					
7	Appears relevant to managing anxiety.					
8	Offers flexible pathways to self-help.					
9	Provides a balanced range of self-help options.					
10	Presents self-help options in an engaging way.					
11	Encourages personal exploration.					
12	Suggests realistic goals for change.					
13	Encourages persistence with self-help.					
14	Appears ethically sound.					
15	I would be happy to use it.					
16	I would be happy to recommend it.					

If you would like to comment on any of your responses, please write here:

Appendix Vf

Example of iPhone evaluation with developer responses

Evaluation of SAM-app on iPhone by UWE team Version 0.9.5b (1.2.3) issued 3.5.13		

Shaded rows – issue outstanding and carried forward

Sidebar off **Main Menu**	**Report issue** This currently opens to a page with no exit button	Added in-app email client
Sidebar off **Main Menu**	**Report issue** Please use bugs@sam-app.org.uk for '**Report issue'** now in place. (This will go to Paul Matthews at UWE who will forward to MyOxygen.)	bugs@sam-app.org.uk Is report issue email.
Main menu / Working with SAM	All pages: to make it clearer that the pages swipe, could the dots at the bottom be larger, or add a NEXT button?	Double sized dots added.
Main menu / Working with SAM	**What Freud said:** After the first sentence on this page, there should be a colon not a semi-colon.	Changed
Main menu / Things that make me anxious	When item is added, users need guidance on how to access the sliders and how to enter a rating on each slider.	Added a toast with message "Rate your anxiety" when user is done with entering their anxiety name and if all the sliders are zero. Also restricting it to show not more than 3 times per navigation.
Main menu / Anxiety tracker	At top right-hand side of graph page, can we have a cog icon to indicate that what is on the sidebar is a function, not settings/ further information as indicated by the 3-bars icon. Otherwise users may see it as optional when in fact it is essential.	Changed to cog icon
Main menu / Anxiety tracker	Graph title is not centred. Suggest that subtitle be used instead: '*Study the patterns in your anxiety'*	Changed to subtitle
Main menu / Help for anxiety now	**Read this twice, slowly** The text that follows this instruction needs to be in **bold** so that it is more likely to catch the user's attention.	Bold text
Self-help menu page	**Take small steps** Icon label is placed slightly lower than the others.	Changed alignment
Self-help menu page	Some of the menu icons and their text labels appear brighter than others – is there an issue here?	Not an issue. They are different colours.

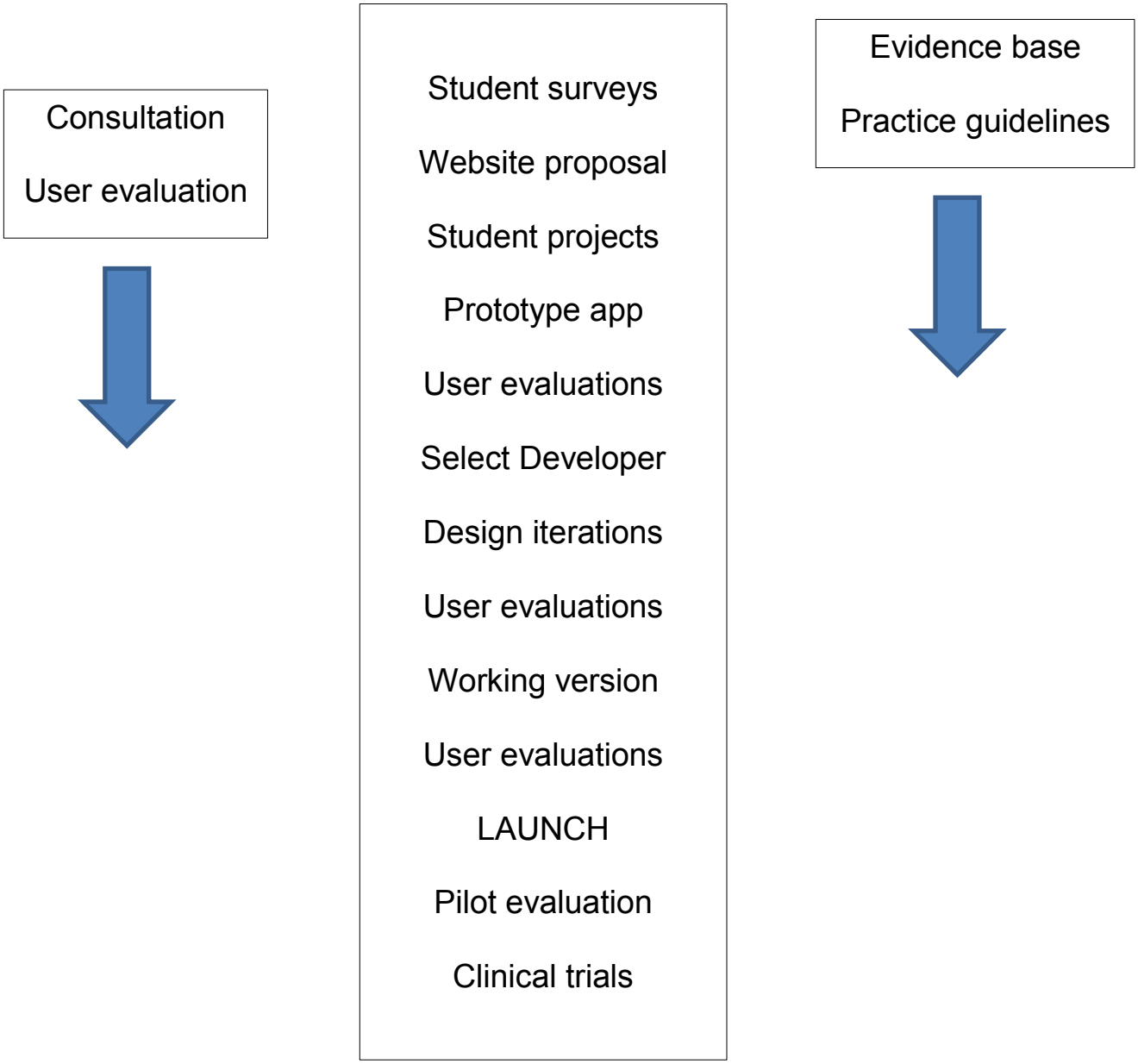
Self-help menu	**Rating** self-help options: Can the user's star rating of self-help options be shown on the top right of the option page, as well as in the options index?	New requirement, can be addressed in future version(s)
Self-help Menu / Relaxation-physical	**Calm breathing** Adjustable breathing-in time still reverts to 4 seconds whatever period you set.	Check default settings, Not able to find actual bug. Kindly provide steps to reproduce if not fixed already.
Self-help menu / Relaxation mental	**Picture peace** On the instruction **(i)** text, could the sentences be a little further apart for clarity – perhaps make the **(i)** page a bit longer?	New overlay instructions
Self-help Menu / Relaxation-mental	**It's only a thought** On opening screen: Watch your worries float away should be re-written as Touch here to watch your worries float away	Changed to "Okay" with improved button (Same as picture peace).
Self-help menu / Relaxation-mental	**Stop that thought** AFTER the worry has been exploded, the bottom cloud needs to jiggle to indicate the presence of IMPORTANT user information ('*Focus on a thought passing through your mind*' etc.) Suggest that this information would be better placed under an **(i)** button on the bottom right of the screen and to be consistent with other self-help options. This information needs to stay on the screen until the user taps to remove it. At present, it is disappearing quickly before the user has time to process and act on it.	Added (i) with 'Focus on a…' text. Both the texts are shown all the time with bottom cloud and (i) button. AFTER explosion the tool reset to initial state. If requirement is any different, please provide detailed steps to change content with trigger event and state transitions.
Self-help Menu / Thinking and anxiety	**How do you think?** Add text to existing text on the bottom cloud guidance as follows: '*See Relaxation-mental on the Self-help menu'.*	Append at the end. Please provide insertion range if position is not correct.
Self-help menu / Thinking and anxiety	**Positivity practice** Blinking cursor should appear on first thought/text box in the list.	Done
Self-help menu / Thinking and anxiety	**Positivity practice** After each thought entry, suggest including an instruction: '*Next thought?'*	Changed return key to go next thought. Added feature to go to next section if all entries are filled in.
Self-help menu / Thinking and anxiety	**Positivity practice** Instruction **(i)** second paragraph should read: *'As your thoughts are randomly presented, tap on the positive thoughts to get a star'*	Changed

Self-help menu / Thinking and anxiety	**Positivity practice** See error message which follows user entering four identical thoughts – users may wish to do this.	Allowed repetition
Self-help menu / Thinking and anxiety	**Positivity practice** Users should be able to enter less than 4 thoughts at a time.	Allowed minimum one thought (positive or negative).
Self-help Menu / Thinking and anxiety	**Positivity practice** **'Okay'** button/sign, after adding thoughts, needs to be bigger.	Bigger. (Matched with it's only a thought)
Self-help Menu / Health and anxiety	**Mystical monitor** In the instruction **(i)** text, number (4) should read as follows: 4. *Repeat steps 3 and 4 <u>at least once.</u>*	Changed
Self-help menu / Take small steps	**Imagine it** page. Re line of text *'Imagine being there and feeling calm'* Replace colon at the end of this sentence with a full stop.	Changed
Self-help menu / Take small steps	**Experiment** page As previously requested, there does need to be a link or jump button to the two submenus referred to here (Information about anxiety + Thinking and anxiety).	Add sub menus as navigation link.
Self-help menu / Take small steps	**You can do it** page. Re line of text *'The power to heal myself is within me. I can do it.'* The second phrase (*I can do it*) should be on the same line.	Done
Self-help menu / Take small steps	**You can do it** page Our mistake – please delete last line of text: *'Add it to your home page?'*	Done

Follow-up queries from your replies re Version 0.9.3b (1.2.1) issued 22.4.13		
Main menu page	Bottom cloud does not jiggle when opened to signify guidance within.	Done (assuming asked for "when app got foreground" event)
	Is the current extent of the jiggle sufficient to catch user's attention or could it go on for longer?	Yes, it's sufficient also optimum to avoid extra attention with jiggling.
Self-help menu / Relaxation-mental	**Stop that thought:** Can we have a mild explosion sound to accompany the exploding words?	Audio file added
		Have asked for one – to follow shortly.

Appendix VIa

Developing an app: Overview



Appendix VIb

SAM-app Project Timeline

Time periods are approximate

2009 - 2011	2011					2012											
	Aug	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
Development and trials of prototype app for social anxiety	Project planning					Adapt and revise project timetable. Review meetings with project sponsor.											
	UWE project team meetings ad hoc					UWE project team meetings weekly in term time											
						Joint Teams meetings (8)											
	Practitioner consultation: rationale					Practitioner consultation on self-help options: (1) general principles (2) specific recommendations									Survey of icon preferences		
						Recruit trial users					Ethics application			Plan evaluation programme			
	App specification document			Researching self-help options				Write self-help options with data structures			Iterative development of app using Axure prototyping tool						
	Select developers and invite to quote			Review quotations	Appoint developer			Review wireframes Agree app logo			Rent social cloud server		Get UWE Apple Developer licences				
	Plan costs and budget				Set up cost centre			Paypoint 1			Paypoint 2						Paypoint 3
	Applicants sign non-disclosure agreement				Contract signed	UWE legal colleagues re Terms and Conditions of use, guidance and disclaimers. Updates follow app development.											
	Clarify Intellectual Property Rights					Permissions to use self-help resources Listing acknowledgements											
						Marketing and promotion: Making contacts. Discussing options.											
						Market research surveys							SAM web page				

2013											
Jan	**Feb**	**Mar**	**Apr**	**May**	**June**	**Jul**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
	Draft project report and review with team										
	Convene Advisory Board for app management										
UWE project team meetings as required											
	Build prototype apps					SAM-app submitted to app stores					
	Usability evaluations by experts + trial users										
Construct Social Cloud with evaluations by project teams											
	Final check of Terms and Conditions Review of Data Protection issues					Final builds signed off					
	Paypoint 4		Paypoint 5			Paypoint 6					
Promotion strategy agreed with UWE and UWESU						National and local promotion as agreed					
Press release agreed		Posters and websites prepared for internal promotion			Script and record induction video						

Appendix VIc

PRESS RELEASE AGREED 17.4.13

New self-help app for anxiety launched with students in mind

Researchers at UWE Bristol have developed an app for smartphones designed to help students and other users manage their anxiety.

SAM is believed to be one of the first apps of its kind developed by a university for use by students. It is a psycho-educational tool that runs on smartphones and tablets to help users understand and manage their anxiety. It incorporates a range of self help activities that are available 24/7 on the users' device.

SAM provides self-help tools for monitoring the user's anxious reactions in different situations and a range of self-help options to help in learning to manage their anxiety. These include relaxation exercises, meditation, calming images and interactive games. Users may also share anonymously in peer support through a closed social network of other users.

SAM is based on knowledge of how the mind generates anxiety and draws on established methods of psychological self-help for reducing anxiety. Best practice in human-computer interaction design and usability evaluation studies have ensured that the app is intuitive and easy to use. The project team worked with a local app development company who brought their experience of mobile technology to engage and maintain the interest of users.

The development of the app builds on research in social anxiety in learning by UWE Bristol and the University of Plymouth and the evaluation of a prototype app. Phil Topham, who carried out the original research and who has coordinated the app development project, says, "We know that there are many sources of anxiety for students, including the challenge of learning situations such as seminars and presentations. Anxiety and avoidance affects students' engagement with learning and their general well-being. We want students to get the best from their time in higher education, and this app provides an easily accessible tool for students to use, as and when they choose. With practice, SAM should give users increased confidence in managing their anxiety, enhancing well-being and their ability to cope."

UWE Bristol provides counselling services and wellbeing initiatives for all students This app is an additional resource that students can access, with or without professional support.

SAM will be free to download from the Apple and Android app stores for the first year.

Appendix VId

SAM-App Advisory Board

Terms of Reference

SAM is a mobile app that has been developed to provide self-help for mild to moderate anxiety. It has been funded by UWE for the primary purpose of enhancing and extending the range of wellbeing / mental health provision for UWE students. SAM may also be used for teaching, research and evaluation. For further information, see 'About SAM', below.

Aims

The SAM-App Advisory Board has been convened to ensure that the university's investment in SAM is protected and its value maximised. The following Advisory Board functions have been identified and others may follow:

- Promote SAM to UWE students and other users as agreed;
- Ensure technical maintenance and software upgrades;
- Review therapeutic use and updating of self-help content;
- Monitor ethical issues arising from use e.g. social networking;
- Ensure financial sustainability;
- Support use in teaching e.g. interaction design;
- Support research and evaluation e.g. impact of mobile self-help;

The Advisory Board will be convened when the app has been built, undergone user trials and is available for students to download from the app stores.

Decision-making

The Deputy Vice-Chancellor (John Rushforth) has conveyed his written support for SAM to be managed from within Student Services. Given SAM's primary role in student support, it is proposed that responsibility for decisions about SAM rests with the Head of Student Support and Wellbeing or her delegated representative. Steering

Group members will advise and consult in relation to those decisions and their own interests, and may take responsibility for ensuring the performance of related tasks.

Membership

The following have provisionally agreed to be members of the Advisory Board:

Sue Meads	Head of Student Support and Wellbeing
Diane Zimmer	Head of Wellbeing Service
Bev Green	Head of Partnerships, School and College Partnerships Service
Praminda Caleb-Solly	Project Team, Department of Computer Science and Creative Technologies
Paul Matthews	Project Team, Department of Computer Science and Creative Technologies
Phil Topham (temp)	Project Team, Department of Psychology
Hugh Boyes	General Manager, UWESU
Kieran Kelly	Convenor, SAM Steering Group
Counsellor / Psychologist (tbc)	SSD / Department of Psychology
Adam Joinson (tbc)	Professor of Behavioural Change, Bristol Business School

Membership will need to be confirmed when arranging the first meeting of the group. Andy Farmer and Dan Hopkins from the developers, MyOxygen, may be available to attend or to be consulted as required.

Finance

SAM has been funded with £35K from the university's strategic development budget. Actual and anticipated expenditure so far:

Development costs (MyOxygen):	£25K + VAT.
Other costs (market research, rental of web server, purchase of tablet for trials):	est. £1K.
Service contract for year 1 (MyOxygen):	£1.5 + VAT.
Estimated balance at July 2013:	est. £2K.

By agreement with John Rushforth, any budget surplus can be used on project - related expenditure. The budget is currently held by Tony Ward, Head of Department of Psychology. By agreement with Management Accounts, the budget is rolled over to the next financial year until the project is completed.

About SAM

1. SAM has been designed and developed by an interdisciplinary team at UWE in collaboration with MyOxygen, Bristol.

2. The design and content are copyright to UWE and the software codes are owned by UWE. Design, content and codes are therefore available as a basis for further self-help app development at UWE.

3. Terms and Conditions for use have been approved by UWE legal advisers to clarify the scope of SAM for users and to define UWE's legal liability.

4. Anonymous user data is held on a server and in accordance with the Data Protection Act. Users have the right to request and delete data by sending requests to a generic mailbox; these will be actioned by a member of the Project Team.

5. SAM includes a closed, anonymous social network for peer support. Unacceptable comments are removed automatically if requested by users. Comments posted on the social network are periodically monitored by a member of the Project Team.

6. The app developer has complied with industry standards for accessibility of mobile devices. Initial consultations with the Disability Service suggest that future upgrades to SAM could review accessibility issues within available resources.

7. For the first year of operation, SAM will be free to download from the Apple and Android app stores. The development budget is sufficient to fund a servicing contract with the developers for one year, after which SAM will need to be self-supporting.

8. SAM will be promoted to UWE students, to UK and international students, to other organisational users such as the NHS, and to the general public.

9. A high profile and positive reception by users will justify charging a download fee to ensure financial sustainability: maintenance, upgrades, clinical updating and development.

10. Colleagues in the following UWE departments have provided consultative and task support during the development of SAM and may continue to do so: IT Services, Student Services, Marketing and Communications, Financial Services, Research, Business and Innovation.

11. A range of external practitioners have provided consultative support during the development of SAM and may be available for further consultation on applications, trials and development. This list is available from the Project Team.

Appendix VIe

SAM-App Advisory Board
First meeting: 26 May 2013
1000-1130 4E04

Present:

Kieran Kelly (Convenor)
Phil Topham (HLS)
Diane Zimmer (SSD)
Adam Joinson (FBL)
Paul Matthews (FET)
Praminda Caleb-Solly (FET)
Nike Holmes (SCPS)

1. Welcome and Introductions
2. Progress so far
   PT reported that the App had competed development and was waiting acceptance by the Apple Store; this is expected to take 2-4 weeks. The University had financed the original development of the App for use by UWE Staff and students with the intention that it will be self-financing after the first year. The App and associated, data and code can be made available for the purposes of practice, teaching and research.
3. Interests and expectations
   Those present outlined a range of uses and interests including to support students in contact with SSD and as an offer of support to prospective students via SCPS. Colleagues made a number of suggestions of possible future areas for research.
4. 5. 6. Task and priorities
   The following actions were agreed and responsible colleagues identified.

1	Workshop event for Staff in SSD	PT
2	Initiate link between Dept of Psychology and SSD	PT
3	Identify potential uses for 16-18 year group	NH
4	Initiate contact with JISC	PT/NH
5	Add data security and ethical issues as a fixed item to Advisory Group Agenda	KK
6	Upload data specification and documents to a dedicated team site.	KK/PM

7	Convene Evaluation sub-group	AJ
8	Action budget transfers	PT
9	Complete service agreement with MyOxygen	PT/PCS/PM
10	Year Round Promotion via UWESU and NUS	HB
11	Maintain WebSite with a view to transferring to M and C in due course	PM
12	Application to NHS Apps Store	PT
13	Review UK regulations for Apps. Documentation to be uploaded	PT/KK
14	Seek further partnerships, funding	ALL
15	Promotion	ALL
16	The UWE Press Office will prepare a release to coincide with the launch	PT
17	Notification to the group of the success of the soft launch and any subsequent bugs or issues	PT

5. AOB none
6. Future Meetings

   September 2013 KK