

PROJECT PROPOSAL

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Module name: CHANGEMAKERS, CREATIVITY AND VALUE

Course: MindMate – Mental Healthcare

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Task 1: Ideation & Mind Map

Central Theme: Creativity, Innovation & Mental Healthcare

Creativity and innovation play crucial roles in shaping both society and individual wellbeing. According to Sawyer (2019), innovation emerges from connecting ideas in new ways—this aligns closely with design thinking approaches used in modern healthcare. Mental health services increasingly rely on creative technologies, such as AI-assisted therapy tools or digital cognitive-behavioural interventions (Fleming et al., 2019). These innovations create societal value by improving accessibility, reducing stigma and offering personalised support.

Mental Health Innovation & Value Creation

Mental healthcare is increasingly dependent on creativity and innovation to address rising demand, shifting societal expectations, and the complexity of psychological wellbeing. According to Runco (2014), creativity enables the development of fresh, meaningful approaches to human problems, while innovation transforms these ideas into practical solutions. In the mental healthcare sector, this means designing supportive systems that respect ethics, enhance wellbeing, and create social value.

Creativity & Innovation Concepts

Topic 1 - How Innovation Shapes Wellbeing

Creativity in Mental Healthcare

- Generates new ways to deliver emotional support
- Supports person-centred wellbeing strategies
- Encourages empathetic problem framing

Innovation in Mental Healthcare

- Involves translating creative insights into digital tools, interventions, and systems (Tidd & Bessant, 2020).
- Includes AI-assisted support, teletherapy, digital wellbeing apps, and early-intervention systems.

Design Thinking for Mental Health

- Empathy → define → ideate → prototype → test
- Highly suited to mental-health contexts
- Helps uncover hidden emotional needs and user barriers

How Innovation Shapes the World

- **Design Thinking** (Brown, 2008)
 - Empathy
 - Ideation

- Rapid Prototyping
- **Innovation Diffusion** (Rogers, 2003)
 - Early adopters
 - Technology acceptance
- **Value Creation**
 - Social innovation
 - Improving wellbeing
 - Impact on communities

Topic 2 - Societal & Psychological Drivers of Innovation

Rising Mental Health Concerns

- Students and young adults increasingly experience anxiety, stress, and digital burnout.

Fragmented Access to Support

- Gaps between self-help resources and clinical services.
- Many individuals need guidance before reaching crisis point.

Digital Transformation of Care

- Remote support, digital monitoring, and AI-enabled wellbeing check-ins.

Mental Health Challenges related to MindMate programme

- Rising demand for mental health support
- Long NHS waiting lists
- Stigma surrounding in-person therapy
- Isolation among young people
- Increased anxiety & depression since COVID-19 (Pierce et al., 2020)

Topic 3 - Personal Interests Related to MindMate Mental Healthcare

Areas of Interest

- Early-intervention mental-health technology
- Wellbeing behaviour-change techniques
- Digital therapeutics
- AI-supported reflective journaling
- Psychoeducation through mobile apps
- Mood and stress tracking

Personal Interests & Potential Project Ideas

- Mobile apps for mental wellbeing
- AI chatbots for emotional support
- Digital tools for anxiety management
- Immersive VR environments for relaxation
- Gamification of CBT techniques
- Peer-support online communities
- Wearable devices tracking stress indicators

Topic 4 - Potential Project Ideas

1. **AI-Guided Emotional Check-In System**
 - Helps students reflect on mood and habits.
2. **Digital Wellbeing Companion for Stress Reduction**
 - Provides prompts, relaxation exercises, coping strategies.
3. **Behaviour-Change Support App for Healthy Study Habits**
 - Targets procrastination and burnout.
4. **MindMate Peer-Support Matching Platform**
 - Connects users to trained listeners, not clinicians.

Emerging Technology Relevant to MindMate

- AI-driven mood tracking
- Machine-learning personalisation
- Biofeedback sensors
- VR mindfulness environments
- Behavioural analytics

Topic 5 - Selected Project Idea

Chosen Idea:

AI-Supported Emotional Check-In and Digital Wellbeing App for University Students

Reason for Selection:

- Students often struggle to articulate early signs of stress.
- Early check-ins can improve self-awareness and reduce escalation.
- AI can personalise wellbeing suggestions, supporting value creation for both the individual and society.
- Aligns with creativity, innovation, and mental-health-focused value design.

Project Idea: Developing a digital mental-health companion app that uses conversational AI and behavioural prompts to help young adults manage anxiety.

This idea offers strong value creation: accessibility, anonymity, personalisation, and early-intervention support. It also aligns with MindMate’s emphasis on mental-health service innovation.

Task 2 — Aim, Objectives & Research Area

Q1. Aim & Objectives

Aim:

To explore how an AI-supported emotional check-in system can enhance digital wellbeing and early mental-health self-awareness among university students. To investigate how a digital AI-enhanced mental-health companion app can support young adults in managing anxiety and improving emotional wellbeing.

Objectives:

1. To review existing literature on emotional check-ins, digital wellbeing, and AI-supported mental-health tools.
2. To analyse existing evidence on digital mental-health interventions and their effectiveness.
3. To investigate student attitudes, needs, and concerns surrounding digital mental-health support.
4. To explore the attitudes of young adults towards AI-based emotional-support tools.
5. To design a concept prototype of an AI-powered emotional self-assessment tool.
6. To evaluate user perceptions of usefulness, trust, and ethical considerations.
7. To identify how the technology could create value for individuals, universities, and wider society.
8. To identify key design features required for an engaging and ethical mental-health companion app.
9. To evaluate how behavioural-prompt systems could support anxiety self-management.
10. To propose a conceptual prototype informed by research insights.

Q2. Research Philosophy — Based on Topic 1: Choosing the Right Approach

A **Pragmatic research philosophy** is most suitable. Pragmatism focuses on solving real-world problems using flexible approaches (Saunders et al., 2019). Mental-health innovation requires both:

- **Qualitative insights** (users’ emotions, barriers, trust concerns)
- **Quantitative patterns** (screen time, mood trends, stress indicators)

Pragmatism accepts that mental health is complex and subjective, meaning no single method produces full understanding (Creswell, 2014). It supports:

- Mixed methods
- User-centred evidence
- Practical value creation
- Iterative design thinking

This aligns perfectly with MindMate’s mission to understand users deeply and create meaningful interventions.

The project adopts a **pragmatic research philosophy**. Pragmatism focuses on “what works” and encourages blending qualitative and quantitative data (Creswell, 2014). Since digital mental-health interventions involve both human experiences and measurable outcomes, a pragmatic worldview allows flexibility in method choice. It supports problem-solving and real-world impact—central to design thinking (Brown, 2008).

This philosophy aligns with the module focus on value creation and innovation, enabling practical, user-centred insights that can inform service development.

Q3. Search Tools & Databases — Based on Topic 3: Known Knowns

Search Tools & Techniques

- Boolean operators:
 - “digital wellbeing” AND “AI support”
 - stress OR anxiety OR “mental health”
- Truncation: wellbeing*, emotion*, support*, student*
- Filters: peer-reviewed, last 10 years, psychology/technology journals
- Snowballing: checking references of relevant papers
- Citation tracking on Google Scholar

Databases

1. **PsycINFO** – mental health, behaviour, cognition
2. **PubMed** – mental wellbeing, stress, self-care
3. **Google Scholar** – broad academic coverage
4. **ScienceDirect** – digital wellbeing and behavioural research
5. **IEEE Xplore** – AI, mental-health technology, affective computing
6. **ACM Digital Library** – HCI research, digital support systems

These databases support comprehensive exploration across mental-health science, digital behaviour, and technological innovation.

Search Tools, Databases & Research Strategies

Search Tools:

- Boolean operators (AND, OR, NOT)
- Truncation & wildcard symbols (e.g., anxi* for anxiety/anxious)
- Quotation marks for phrases (“digital mental health”)
- Subject filters & keywords

Databases:

- **PsycINFO** – psychology & mental-health research
- **PubMed/MEDLINE** – clinical and health-science literature
- **ScienceDirect** – technology, behavioural science
- **Google Scholar** – broad, useful for initial scoping
- **IEEE Xplore** – AI, app development, digital technologies

Example Search Strings:

- “AI mental health app” AND “young adults”
- “digital intervention” AND anxiety AND effectiveness
- “conversational agent” OR “chatbot” AND wellbeing
- “behavioural prompts” AND “self-management”

This search strategy ensures relevance, depth, and coverage of technology-based mental-health interventions.

Task 3 — Research Strategies

Q1. Validity, Reliability, Generalisability & Ethics

Validity

- Pilot test all questions to ensure clarity.
- Use validated wellbeing scales where possible (e.g., mood check-in scales).
- Include multiple data sources (triangulation): surveys, interviews, prototype testing.
- Using peer-reviewed sources to ensure credible evidence.
- Triangulating data: combining surveys with interviews improves construct validity.
- Using clear operational definitions (e.g., what “anxiety management” means)

Reliability

- Keep survey wording consistent.
- Use standardised procedures during interviews.
- Document data collection processes clearly.

- Standardising survey questions.
- Running a pilot test to identify inconsistencies.
- Using established measurement scales (e.g., GAD-7)

Generalisability

Generalisation is limited to university students but improved by:

- Sampling across disciplines
- Including multiple age groups
- Recruiting both domestic and international students
- Using a diverse participant sample within the young-adult demographic.
- Transparent inclusion/exclusion criteria.
- Linking findings to existing large-scale research to show fit with broader populations

Ethical Considerations

- Informed consent
- No diagnostic wording (tool supports wellbeing, not clinical treatment)
- Emotional safety: signpost to appropriate mental-health support
- GDPR-compliant data storage
- Ensure anonymity, no sensitive health history questions
- Informed consent and anonymity.
- Sensitivity to mental-health distress.
- Signposting professional services if needed.
- Secure data storage compliant with GDPR.

This ensures respect for vulnerable participants and appropriate handling of wellbeing-related information.

Q2. Data Collection Methods & Pilot Tool

Data Collection Methods

1. Survey

- Measures habits, stress indicators, attitudes toward AI mental-health tools.
- To gather quantitative data on attitudes, app-use habits, and perceived usefulness.

2. Semi-Structured Interviews

- Explore deeper emotional experiences and trust concerns.
- To explore emotional responses, expectations, and concerns about AI-based mental-health support.

3. Prototype Usability Test

- Participant interacts with a mock-up emotional check-in interface.

4. Secondary Literature Review

- Establishes evidence base and identifies gaps.

These methods match a pragmatic, mixed-method design.

Pilot Data Collection Tool (Appendix Summary)

A short (5–7 item) survey including:

1. “How often do you check in on your emotional wellbeing?”
2. “Which factors currently affect your stress levels?”
3. “How comfortable would you feel using AI for emotional support?” (1–5 scale)
4. “What concerns do you have about digital mental-health tools?”
5. “Which wellbeing features are most useful to you?”
6. “Would you be interested in personalised wellbeing prompts?”

Pilot Feedback Improvements May Include:

- Simplifying wording relating to emotional states
- Reducing the number of rating scales
- Adding examples of wellbeing features
- Ensuring questions do not imply diagnosis or judgement

Pilot participants’ feedback will refine survey clarity, improve question relevance, and help focus the final project on the most meaningful user needs.

Q3. Quantitative & Qualitative Analysis

Quantitative Analysis

- Descriptive statistics
- Frequency tables
- Correlation between mood levels and stress identifiers
- Likert scale analysis
- Simple visualisations (bar or line graphs)
- **Descriptive statistics:** mean, frequency, percentage distribution.
- **Inferential statistics:** correlations between anxiety levels and willingness to use digital tools.
- **Cross-tabulation** to compare sub-groups (e.g., male vs female responses).

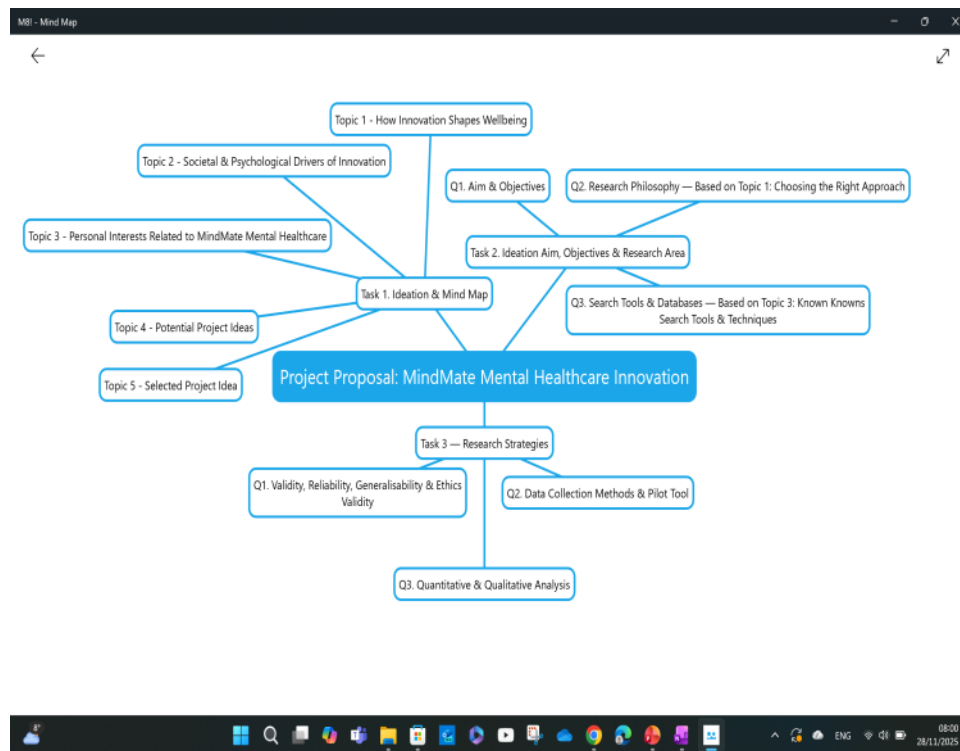
Qualitative Analysis

- Thematic analysis (Braun & Clarke, 2006)
- Coding approach:
 - Barriers to digital mental-health use
 - Trust and privacy concerns
 - Desired features
 - Emotional language patterns
- Affinity mapping to inform design thinking
- Extracting meaningful user insights to guide value creation
- **Thematic analysis (Braun & Clarke, 2006):** coding interview transcripts to identify themes such as trust, usability, or emotional comfort.
- **Content analysis:** counting recurrent ideas.
- **Narrative analysis:** understanding personal stories and lived experiences

These analyses will collectively provide deep insight into how young adults perceive digital anxiety-support technologies.

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