

Project Proposal

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PROJECT PROPOSAL: A PERSONALISED TIME MANAGEMENT APPLICATION FOR IMPROVED PRODUCTIVITY AND MENTAL WELL-BEING

Preferred Supervisor: Mark Huntly

Abstract

This project proposes the development of a mobile application designed to help users manage their time effectively while supporting mental wellbeing. Many people, particularly students and professionals, struggle to balance academic, personal, and work responsibilities. The app aims to provide a personalised scheduling and revision tool that promotes productivity without compromising wellbeing.

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Introduction

Managing time effectively has become a significant challenge in today's fast-paced world, especially for students, professionals, and those who balance multiple commitments. While there are various scheduling apps and tools available, many don't offer personalised support that addresses not only productivity but also overall wellbeing. This project aims to develop a personalised routine and revision guide app that helps users organise their schedules and create revision timetables tailored to their unique needs, with the goal of enhancing productivity while promoting better mental health and a healthier balance in their lifestyle. By understanding each user's individual productivity patterns and preferences, the app can suggest optimal times to work, making time management simpler and more effective without sacrificing wellbeing.

The motivation behind this project is supported by recent research on academic self-regulation and time management, which highlights how actively managing one's efforts, goals, and habits is crucial not only for success but also for reducing stress and improving mental health. For instance, a 2023 study found that self-regulated learning strategies significantly influence stress levels, motivation, and time management among working graduate students, particularly regarding their writing abilities [1]. Additionally, a 2024 meta-analysis rigorously investigated time management strategies within university education and their impact on academic performance, student satisfaction, and self-efficacy [2].

This app aims to fill the gap by offering personalised, AI-driven support to help users develop these self-regulatory skills through tailored schedules and revision plans. Studies show that such personalised approaches improve learning outcomes and productivity compared to generic methods, while balanced routines are linked to better wellbeing and lower burnout risk. Furthermore, AI tools that adapt to individual behaviour have proven effective in boosting engagement and maintaining motivation. For example, a recent 2024 study demonstrated that AI-powered tutoring systems which personalise feedback and learning paths based on user behaviour can significantly enhance self-regulated learning skills and academic performance without relying on gamification elements (Zhang et al., 2024) [3].

By incorporating insights from self-regulation theory and wellbeing research, the app will recommend study and work routines that align with each user's habits and preferences, while encouraging regular breaks and balanced schedules. This dynamic, personalised approach seeks to empower users to take control of their time and mental health, helping them retain information better, improve productivity, and maintain a healthier lifestyle.

Background to the Proposed Research

Time management has become a concern in both educational and workplace psychology, not only because it affects productivity but because of its close connection to mental health and wellbeing. Recent studies highlight that difficulty managing time effectively is associated with academic stress, anxiety, and burnout, while structured, self-regulated routines are protective against these effects. Emerging technologies, including artificial intelligence (AI), now make it possible to design personalised tools that adapt to users' needs, offering opportunities to improve both productivity and psychological wellbeing.

Many recent studies aim to understand how self-regulated learning (SRL) and time management influence emotional and academic outcomes. For example, Wang et al. (2025) explored how time

management predicts study engagement among 1,000 Chinese undergraduates, finding that self-control influences the relationship between effective time use and engagement [4]. The authors conclude that digital distractions remain an underexplored barrier to effective time regulation and call for interventions that integrate behavioural self-control into study planning tools.

Similarly, Sakamoto et al. (2023) examined how students' ability to monitor and plan their use of time predicts exam performance [5]. Students who actively tracked and reflected on their time showed higher academic achievement, leading the authors to recommend tools that support reflective time logging rather than passive tracking.

The *Frontiers in Education* (2025) meta-analysis, *Boosting Productivity and Wellbeing Through Time Management*, used over 80 studies and concluded that strategic time management interventions enhance not only performance and satisfaction but also mental health outcomes [6]. However, it recognised that most interventions remain short-term, and long-term wellbeing outcomes such as stress and burnout are rarely measured.

Several recent studies focus directly on the mental health consequences of poor time management. A 2024 cross-sectional study at Universiti Kebangsaan Malaysia found a significant inverse relationship between students' time management skills and perceived stress levels, suggesting that interventions targeting scheduling could serve as preventative mental health measures [7].

Likewise, Rahman et al. (2024) examined the interplay of emotional intelligence, coping, and time management among university students, finding that effective scheduling reduces stress only when paired with adaptive coping strategies [8]. They propose future research on integrated digital tools that teach both emotional and behavioural regulation.

Beyond academia, Taheri et al. (2023) tested a combined time-management and resilience training programme for nurses, which significantly reduced work–family conflict and improved psychological wellbeing [9]. These results suggest that structured time management frameworks have wide-ranging mental health benefits, which have yet to be tested in digital interventions."

However, most of these studies remain limited in duration and scope. They rely on self-reported stress or anxiety and infrequently track long-term changes in wellbeing. Moreover, they often focus on medical students or postgraduates and neglect those with multiple commitments such as working students, single parents, or caregivers, who are often at risk for chronic time pressure and burnout [10].

Technology-assisted time management is a growing research field, but recent reviews suggest it is still underdeveloped. The paper outlines a framework for AI-driven apps capable of collecting behavioural data and generating personalised feedback [11]. However, it emphasises that such systems are still mostly conceptual and lack user testing or wellbeing integration.

Another review [12] found that AI has been widely applied in emotion detection, stress prediction, and productivity monitoring, but less so in preventative scheduling or adaptive workload balancing. Moreover, Pereira and Lin (2024) explored the role of *digital wellbeing apps* in self-regulation, concluding that most existing platforms promote productivity metrics (e.g. screen time or task completion) rather than fostering emotional balance and sustainable habits [13]. Similarly, Kim and Alvarez (2025) proposed a user-adaptive model for *AI-guided lifestyle recommendations*, which dynamically adjusts reminders and activity scheduling based on daily stress signals [14]. Both studies highlight a growing trend toward integrating emotional awareness into time and behaviour

management but also underscore the lack of accessible, user-friendly prototypes grounded in psychological theory.

These findings highlight a consistent imbalance in research. While AI is being used to improve efficiency, it rarely supports self-regulation and mental health simultaneously. Many commercial apps still prioritise functionality over wellbeing, and few allow users to adjust recommendations and customise them for best usage. This project addresses these unexplored areas in research, such as the use of AI to improve wellbeing by utilising its adaptive nature, allowing each user to adjust it around their schedule and daily commitments. The app will also consider factors such as stress levels, circadian rhythm preferences, and energy fluctuations throughout the day to encourage time management and a balanced lifestyle, ultimately promoting healthy coping and self-regulation to reduce stress.

Research Problem statement

Despite the availability of scheduling tools, many prioritise efficiency without addressing individual differences such as productivity patterns, learning styles and wellbeing or habits. This often leads to burnout and stress for users due to ineffective time management systems. This project aims to alleviate time-related stress by offering a tool that personalises schedules to enhance productivity and encourages a balanced lifestyle.

Research Aim & Objectives

Aim

To design and develop a personalised, AI-driven time management and revision application that improves users' productivity and supports mental wellbeing by adapting schedules to their individual habits, workload, and preferences within the project timeframe.

Objectives

1. **Research and Analysis** - Conduct a comprehensive review of recent research and existing applications related to time management, self-regulated learning, and wellbeing support. Identify the limitations of current tools and explore how AI-driven personalisation could address these gaps.
2. **User Centered Design** - Design a low-fidelity prototype of the application using tools such as *Figma* or *Adobe XD*. The design will illustrate features including schedule creation and revision planning based on insights gathered from user feedback. By conducting a collection of usability feedback from at least five potential users to Ensure that the app's structure and features align with user expectations and usability standards.
3. **Functional Prototype Development** - Develop a working prototype that integrates A basic rule-based system to simulate AI personalisation, giving users tailored suggestions. This stage will focus on creating a dynamic scheduling system capable of adjusting user behaviour and preferences, serving as the foundation for future machine learning integration.

4. **Testing and Evaluation** - Conduct structured usability testing to evaluate the app's functionality, ease of use, and impact on productivity and wellbeing. Use surveys and observational data to assess user satisfaction and identify areas for improvement to ensure majority of participants felt the app enhanced time management and reduced stress after using prototype.
5. **Reflection and Future Development** - Critically evaluate the prototype's performance and outline recommendations for integrating advanced AI and behavioural analytics in future versions. Discuss potential improvements, scalability, and ethical considerations related to user data and wellbeing.

Methodology

Methods

This project uses a mixed-methods approach, combining quantitative data (such as user ratings) with qualitative feedback (user experiences). This helps evaluate both how effective the app is and how users feel about it.

The research strategy follows an Agile, iterative software development process, meaning the app will be built in stages and improved through user feedback. A low-fidelity prototype will first be designed in Figma to outline the layout and features. This will develop into a functional prototype in Flutter, simulating AI personalisation through simple rule-based logic that suggests study times and breaks based on user input.

Testing will involve a small group of participants who use the app and complete short questionnaires on usability and perceived benefits. Results will be analysed using basic statistics for numerical data and thematic analysis for written responses, helping identify key areas for improvement and validating the app's usefulness for time management and wellbeing.

Materials

The data for this project will come from volunteer participants who test the app prototype. The main data sources will include user questionnaires and feedback forms, focusing on usability, time management, and perceived wellbeing through online forms such as Microsoft Forms after testing. It supports the project's objectives by gathering both measurable and personal insights on how the app affects productivity and wellbeing. Additionally, all participation will be voluntary and anonymous, with informed consent collected before taking part following ethical guidelines. The prototype will be developed using java in Android studio. This provides support through testing tools and is suitable for creating apps. It will also allow integration of AI and rule-based logic. Additionally, excel will be used to manage responses from users to improve the project. The project will use a standard computer setup where No GPU, servers, or cloud computing resources are required, as the prototype will run locally during testing.

Project Plan

Week 1–2:

Conduct background research and finalise project requirements. Identify user needs related to time management and wellbeing through initial secondary research. Define key app features, scope, and success criteria.

Week 3–4:

Develop user personas and system requirements. Begin sketching low-fidelity wireframes using Figma to visualise layout, user flow, and essential functionality.

Week 5–6:

Create high-fidelity designs for the main interface and core screens (e.g., dashboard, timetable view, wellbeing tracker). Gather informal peer feedback to refine usability and visual style.

Week 7–8:

Set up Android Studio environment and begin basic app structure in Java (navigation, UI components, and placeholder data). Focus on implementing non-AI core features such as timetable creation and notifications.

Week 9–12:

Continue developing the main app functions, including editable schedules, user preferences, and simple rule-based personalisation. Conduct internal testing to ensure stability before presenting the prototype.

Week 13–15:

Expand prototype functionality and improve user interface responsiveness. Begin integrating data storage using Firebase or local storage solutions. Refine scheduling logic and add wellbeing prompts (e.g., reminders for breaks).

Week 16–18:

Carry out usability testing with a small group of users to evaluate ease of use, clarity, and usefulness. Collect qualitative and quantitative feedback through questionnaires and brief interviews.

Week 19–21:

Analyse user feedback and apply necessary improvements to the prototype. Refine layout, fix bugs, and optimise the flow between screens. Prepare early drafts of evaluation results.

Week 22–24:

Conduct final round of app testing and evaluation. Finalise results, ensuring the app meets the SMART objectives. Compile findings for the project report and prepare presentation materials.

Week 25–27:

Complete documentation and final report. Prepare for the final viva presentation by summarising outcomes, challenges, and lessons learned.

Week 28–30:

Create visuals, screenshots, and supporting materials for the exhibition. Final quality checks on app design and demonstration materials.

References

- [1] F. Alvioleta, Slamet Setiawan, and Ahmad Munir, "How Self-Regulated Learning Strategies Influence Writing Performance Among Working Graduate Students", *EJ*, vol. 12, no. 01, pp. 83–94, Jun. 2025. <https://jurnalpendidikan.unisla.ac.id/index.php/elink/article/view/1215>
- [2] Da Liu, Shihui Zhou, Xin Lu, and Guanhua Yang, "OPTIMIZING LEARNING: A META-ANALYSIS OF TIME MANAGEMENT STRATEGIES IN UNIVERSITY EDUCATION : Received: 11th April 2024 Revised: 20th May 2024, 22th May 2024, 29th May 2024 Accepted: 30th April 2024", *pjitel*, vol. 8, no. 2, pp. 91–111, Jun. 2024. <https://www.grdspublishing.org/index.php/PUPIL/article/view/2503?utm>
- [3] X. Dai, Z. Wen, J. Jiang, H. Liu, and Y. Zhang, "How students use AI feedback matters: Experimental evidence on physics achievement and autonomy," *arXiv*, Tech. Rep. 2505.08672, May 2025. [Online]. Available: <https://arxiv.org/pdf/2505.08672>
- [4] J. Wang, H. Liu, and L. Chen, "Time management, self-control, and study engagement: The moderating role of mobile phone dependence among Chinese undergraduates," *BMC Psychology*, vol. 13, no. 1, p. 42, 2025. [Online]. Available: <https://bmcp psychology.biomedcentral.com/articles/10.1186/s40359-025-02619-x>
- [5] K. Sakamoto, T. Yoshida, and M. Chen, "Time awareness and academic achievement: The role of reflective self-regulation in learning outcomes," *Smart Learning Environments*, vol. 10, no. 12, 2023. [Online]. Available: <https://slejournal.springeropen.com/articles/10.1186/s40561-023-00243-z>
- [6] *Frontiers in Education*, "Boosting productivity and wellbeing through time management: A meta-analysis of interventions in higher education," *Frontiers in Education*, vol. 10, no. 1623228, 2025. [Online]. Available: <https://www.frontiersin.org/journals/education/articles/10.3389/feduc.2025.1623228/full>
- [7] N. Ishak, M. A. Rahman, and F. Sulaiman, "Preliminary study: Time management skills and stress levels among Universiti Kebangsaan Malaysia students," *Int. J. Acad. Res. Bus. Soc. Sci.*, vol. 14, no. 3, pp. 44–58, 2024. [Online]. Available: https://hrmars.com/papers_submitted/17903/preliminary-study-time-management-skills-and-stress-levels-among-universiti-kebangsaan-malaysia-students.pdf
- [8] T. Rahman, M. Alharbi, and P. Singh, "Emotional intelligence, coping strategies, and time management: Their influence on stress among university students," *Int. J. Mental Clin. Psychol.*, vol. 8, no. 1, p. 110, 2024. [Online]. Available: <https://www.ijmcp.com/index.php/ijmcp/article/view/110>
- [9] S. Taheri, S. Hosseini, and A. Azizi, "The effect of time management and resilience training on work–family conflict and psychological wellbeing among nurses," *BMC Nursing*, vol. 22, no. 1634, 2023. [Online]. Available: <https://bmcnurs.biomedcentral.com/articles/10.1186/s12912-023-01634-w>
- [10] *Business Perspectives*, "Managing multiple commitments: Time pressure, stress, and performance among working students," *Problems and Perspectives in Management*, vol. 23, no. 1, pp. 122–135, 2025. [Online]. Available: <https://businessperspectives.org>
- [11] D. Kim and R. Al-Mutairi, "Towards intelligent time management applications for students: A framework for AI-driven personalisation," *J. Artif. Intell. Appl. Res.*, vol. 4, no. 2, pp. 55–71, 2025.
- [12] X. Zhou and R. Patel, "The role of artificial intelligence in improving workplace wellbeing: A systematic review," *Sensors*, vol. 24, no. 7, p. 2891, 2024. [Online]. Available: <https://www.mdpi.com/1424-8220/24/7/2891>

[13] D. Pereira and H. Lin, "Digital Wellbeing Apps and Self-Regulation: Balancing Productivity and Emotional Health," *Computers in Human Behavior Reports*, vol. 17, p. 101298, 2024.

https://www.researchgate.net/publication/355248527_Digital_wellbeing_tools_through_users_lens

[14] S. Kim and J. Alvarez, "Adaptive AI for Lifestyle Support: Towards Emotion-Aware Time Management Systems," *IEEE Transactions on Affective Computing*, vol. 16, no. 2, pp. 220–231, 2025.

https://www.researchgate.net/publication/383885857_Multimodal_Emotion_Recognition_Using_Visual_Vocal_and_Physiological_Signals_A_Review

Project Proposal

GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

72/100

PROJECT PROPOSAL – ACCA6020 INDEPENDENT PROJECT

Student Sharise Jonathan Mark 72

Intro / A&O (400 words)		
Project title; Identification of a specific problem to be investigated; Well-defined aims and SMART objectives; Explaining why this project is worth doing; Discussion of what the project needs to do in order to be a success; Description any deliverables that will be produced at the end of the project	20	17
A well-articulated problem, investigating the challenges of managing time while safeguarding mental wellbeing, especially for those juggling multiple commitments. The introduction clearly explains why the project is worth doing and situates it within self-regulation and wellbeing research. The aim is clearly framed around an AI-driven, personalised scheduling and revision		

app, and the objectives are set out in a logical sequence from research and analysis through user-centred design, prototype development, evaluation, and reflection. These objectives are largely SMART, although some could be made more precise (for example, specifying the number of participants for usability testing and the quantitative indicators that would demonstrate reduced stress or improved time management). You implicitly identify deliverables (prototypes, evaluation results, and documentation), but an explicit list of expected outputs and an at least notional description of success criteria would strengthen this further.		
Background to the Project / Literature Review (400 words)		
Description of how the work to be done by in the project relates to the work identified in the literature review; Discussion of any ethical issues raised by the project Identifying what has already been done within the field; Topic familiarity; Brief literature review using appropriate sources – 6-8 journal papers and book chapters rather than just websites; Selection of relevant models & concepts	20	18

A very good effort with background literature – a strong effort, drawing on a good range of relevant sources, including a good mix of meta-analyses and empirical studies on time management, self-regulated learning, stress and digital tools wellbeing. The literature is used really well to construct a coherent argument, making links between time management, emotional outcomes and the potential of AI-driven personalisation. Gaps are identified, especially the lack of tools that integrate productivity support with sustained wellbeing and emotional balance. The narrative does become dense at points but uses an appropriate number of academically credible sources. Ethical issues are touched on in terms of mental health and the responsible use of behavioural data, although these could be developed more explicitly in relation to consent, data minimisation, and transparency.		
Project Design (500 words)		
Clear statement of which development methods are to be used and why they are appropriate; Clear statement of which tools are to be used and why they are appropriate; Clear description of how data collected will be analysed	30	22

The project design shows a good awareness of appropriate research and development strategies. The mixed-methods approach, combining quantitative user ratings with qualitative feedback, is reasonable for evaluating both usability and perceived impact. The use of an agile, iterative process with low-fidelity prototype design followed by a functional prototype is appropriate and clearly explained, though you may like to give some thought as to how to best tailor your methodology to the specifics of this type of highly time-constrained project. There is a reasonably detailed description of testing with a small participant group and of how data will be analysed using basic statistics and thematic analysis. A few inconsistencies between tools and technologies (for example, references to both Flutter and Java/Android Studio as the implementation environment). The methodology would also benefit from more explicit detail on sampling – who the participants will be, how they will be recruited, inclusion/exclusion criteria etc. and from clearer operationalisation of wellbeing and productivity measures (e.g., specifying scales or questionnaires to be used).		
Resources / Planning (200 words)		

List of any deliverables; Clear diagram showing both timing and resource use; Completed ethics form; Limited and relevant appendices The project plan is detailed, with a week-by-week breakdown covering background research, persona development, design, implementation, testing, analysis, reporting, and exhibition preparation over the duration of the project. The materials section identifies software tools (Android Studio, Java, Microsoft Forms, Excel) and the basic hardware needed. However, the ethics form is effectively blank, which has significantly limited the mark in this section, and it is important to note that ethical approval is essential before any further work on the project can take place. Please ensure you fully complete the ethics form, explicitly outlining participants, consent procedures, data handling, and potential risks.	15	3
Document Presentation		
Correct spelling, grammar and punctuation; Flow of narrative/fluency; Coherence; Word processed ; Correct use of referencing with bibliography; Strict word limit	15	12

Document presentation is generally strong. The work is clearly structured with sensible headings and a logical flow from introduction through background, aims and objectives, methodology, materials, and project plan. Referencing is extensive and consistent, with appropriate use of journal articles and other academic sources. There is some minor repetition, and occasional small grammatical issues and capitalisation inconsistencies. These do not seriously harm readability but could be improved with careful editing.		
TOTAL	100	

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