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- **Program:** HN/BSC Computing Portfolio
- **Module:** Changemaker : Creativity and Value Creations.
- **Module Code :** ACCA5033
- **Lecturer:** DR Osman Elgawi
- **Portfolio:** <https://sites.google.com/view/assiata/aims-and-objectives-and-research-area>
- **Assignment Title:** ASSignment1: Innovation and Research

Task1: Ideation and Mind Map

26 January 2026 18:52

1. Introduction :

Innovation shapes modern civilisation by translating creative ideas into practical and beneficial solutions. Creativity is the ability to generate novel ideas, whereas innovation is the use of these ideas to create value-added products and services [1]. In computing, creativity and innovation are inextricably linked since digital technologies are continually evolving to address societal, economic, and personal issues. Mobile applications, artificial intelligence systems, and online platforms for education and communication are some examples of such advancements [2].

Innovation also adds to value creation by boosting efficiency, lowering costs, and improving the user experience [3].

Furthermore, innovation affects both society and individuals. On a societal scale, computing advancements boost access to healthcare, education, and jobs via digital platforms. On a personal level, students who participate in creative and innovative activities improve their problem-solving, technical competence, and adaptability [4]. However, innovation must be produced responsibly, taking into account ethical and sustainability concerns including data privacy, cybersecurity, and digital wellbeing [5].

This project includes a mind map based on Unit 1 Topic 1, How Innovation Shapes the World, that applies these concepts to the computer field. A project concept is also presented to show how creativity and innovation can be leveraged to produce value using a digital solution.

1. Mind Map: Creativity and Innovation in Computing

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3. Select project Idea

27 January 2026 14:48

Project Title : Mobile App To Improve Student Productivity and Wellbeing.

This assignment focuses on developing a mobile app designed to improve student productivity and well-being. Many students struggle with managing their time, staying organised, and maintaining good mental health. This app aims to address these common challenges. It would include features such as task planning, reminders, and scheduling tools to help students keep track of their academic responsibilities. Time management tools would allow students to organise their study schedules more effectively, reducing last-minute stress and improving overall performance.

In addition, the app would include stress and well-being tracking features. These tools would help students monitor their mental health and recognise when they need to take breaks or seek support. Research shows that effective time management and self-regulation are strongly linked to better academic performance [1]. Studies also suggest that monitoring mental well-being can reduce stress and improve learning outcomes [2]. The app would also provide motivational tips and recommendations to encourage positive study habits, self-discipline, and resilience.

This project was chosen because student stress and poor time management are serious and growing concerns in modern education. With increasing academic pressure and digital distractions, students often find it difficult to maintain balance [3]. By combining digital technology with practical productivity and wellness tools, the app offers an innovative solution to these problems. It supports students in building healthy habits, improving self-management skills, and maintaining a balanced lifestyle.

From a societal perspective, this initiative has the potential to improve educational outcomes while promoting better mental health. It encourages positive behavioural change and self-improvement. Furthermore, the project aligns well with the program of study, as it applies digital skills, creativity, and problem-solving abilities to develop a practical solution for a real-world issue.

Task 2: Aim and Objectives and Research Area

Project Title: Mobile App To Improve Student Productivity and Wellbeing.

Aim and Objectives

Aim

The aim of this project is to investigate how a mobile application designed to support student productivity and wellbeing can improve academic performance and mental health among higher education students. Research shows that educational technology can positively influence learning outcomes [1], while mobile health and wellbeing applications may help reduce stress and improve motivation [2]. This project will explore how these benefits can be combined into one effective student support tool.

Objectives

Objective 1: Identify Common Student Challenges

To review academic literature to identify the main challenges students face in managing their time, workload, stress, and overall wellbeing.

Research shows that time management and stress are strongly linked to academic performance [3]. Understanding these issues will help define the app's purpose and features.

Objective 2: Evaluate Existing Productivity and Wellbeing Apps

To assess current mobile applications designed for student productivity and mental wellbeing.

Previous studies highlight that some app features, such as goal setting and reminders, can improve engagement and behavioural change [2]. This analysis will identify which features are most effective.

Objective 3: Examine the Link Between Mobile Apps and Academic Performance

To explore the relationship between the use of mobile applications and students' academic achievement.

Educational technology research suggests that digital tools can enhance learning when used effectively [1]. This objective will examine evidence connecting app usage with measurable academic outcomes.

Objective 4: Investigate Impact on Student Wellbeing

To analyse how mobile applications influence motivation, stress management, and mental health.

Research in psychology indicates that digital interventions can support positive behavioural change and wellbeing [4]. This objective ensures the project addresses both academic success and mental health.

Objective 5: Develop Evidence-Based Design Recommendations

To produce a set of research-informed design recommendations for a student productivity and wellness app.

Effective digital tools are typically based on user needs and research evidence [5]. The final recommendations will be directly informed by findings from the literature review and app evaluation.

SMART Objectives

Identify Student Challenges

Specific: Identify common challenges students face in managing time, workload, and well-being.

Measurable: Review and analyse at least 30 peer-reviewed academic sources.

Achievable: Use academic databases such as ERIC, PsycINFO, and Scopus.

Relevant: Understanding these challenges will inform the app's design and purpose.

Time-bound: Complete the literature review within the first 4–6 weeks of the project.

Evaluate Existing Mobile Applications

Specific: Assess existing productivity and wellbeing mobile applications used by students.

Measurable: Analyse at least 5–10 popular apps and compare their key features.

Achievable: Use app store data, user reviews, and academic evaluations.

Relevant: Identifying effective features will guide the proposed app design.

Time-bound: Complete the evaluation within 3 weeks after the literature review.

Examine the Link Between App Use and Academic Performance

Specific: Explore the relationship between mobile app usage and students' academic achievement.

Measurable: Review empirical studies that examine measurable outcomes such as grades, GPA, or productivity indicators.

Achievable: Use educational technology research and multidisciplinary databases.

Relevant: Supports the project's goal of improving academic performance.

Time-bound: Complete this analysis within 3 weeks.

Investigate Impact on Student Well-being

Specific: Examine how mobile applications influence student motivation and stress management.

Measurable: Identify and synthesise findings from relevant psychological and educational studies.

Achievable: Use PsycINFO and related research sources.

Relevant: Ensures the app supports both academic success and mental health.

Time-bound: Conduct this investigation alongside Objective 3.

Develop Design Recommendations

Specific: Produce a set of evidence-based design recommendations for a student productivity and wellness app.

Measurable: Develop at least 8–12 clear, research-informed design guidelines.

Achievable: Base recommendations on findings from previous objectives.

Relevant: Directly contributes to the final project outcome.

Time-bound: Complete in the final 2–3 weeks of the project.

This SMART structure ensures the project is clearly defined, realistic, measurable, and aligned with the overall aim while maintaining academic focus and practical relevance.

GRANT CHART

-	Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8
Identify Student Challenges	<u>Literature Review</u>							
Evaluate Existing Mobile Application		<u>App Evaluation</u>						
Examine link Between App use and app Performance		<u>Academic Performance Analysis</u>						
Investigate Impact on student Well being		-	<u>Well-being Analysis</u>					
Develop Design Recommendations		-	-	<u>Design Recommendations</u>				

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Research Project Timeline

Research Framing (What, Why, How)

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Research Framing (What, Why, How)

What:

This study follows the positive research philosophy. Positive thinking claims that reality is objective and can be studied using observable, measurable facts. Knowledge is created by careful information collecting, statistical testing, and verification through evidence rather than subjective interpretation [1]. Within this structure, correlations between variables can be established, measured, and projected to more diverse populations.

Why:

Positive thinking is applicable for this study because it seeks to assess the relationship between mobile app features and student productivity and well-being. The study aims to find patterns, such as if time-management tools, reminders, or stress-tracking features are linked to higher academic performance or lower stress levels. These goals necessitate quantitative data and statistical analysis in order to assess relationships objectively. A positivist approach promotes the reliability, replicability, and generalisability of findings, all of which are critical when investigating the usefulness of technological interventions in education [2].

How:

The concept will be applied through a quantitative study approach that will involve the distribution of structured online surveys to higher education students. Closed-ended and Likert-scale questions will be used to quantify app usage, productivity levels, and well-being. Statistical analysis, including descriptive and correlational techniques, will be performed with software such as SPSS or Excel. This organised strategy assures objective measurement and allows for evidence-based judgements on the impact of mobile apps on educational results [3].

2.3. Search Tools and Research Strategies

Search Tools, Strategies, and Databases Used

To find relevant information for this study, several academic search tools and research databases will be used.

1. Databases

- **ERIC (Education Resources Information Centre)** – Used to find peer-reviewed research on educational technology and student learning outcomes.
- **EBSCO** – Provides access to multiple education and academic databases.
- **ProQuest** – Offers a wide range of research articles, theses, and dissertations.
- **PsycINFO** – Used to find studies related to student well-being, mental health, stress, motivation, and behaviour change.
- **Google Scholar** – Helps locate a broad range of academic articles across different subjects.
- **Scopus** – Used to find multidisciplinary research and track citations.

2. Search Strategies

To find the most relevant studies, the following strategies will be used:

- **Boolean operators (AND, OR)** to combine keywords.
Examples:
 - “mobile app” AND “student productivity”
 - “educational technology” AND “academic performance”
 - “mobile intervention” AND “student wellbeing”
- **Filters** such as:
 - Publication date (recent studies)
 - Peer-reviewed articles only
 - Relevant subject areas
- **Reference** :Checking the reference lists of important articles to find additional relevant studies.

Task 3: Research Strategies

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4. Research Strategies

Question 1.

Validity, Reliability, Generalisability and Ethical Considerations

To assure the research's quality and credibility, techniques will be implemented to improve validity, reliability, generalisability, and ethical integrity.

Validity relates to how accurately the research measures what it is supposed to measure. Content validity will be improved by creating survey questions based on existing literature on student productivity, well-being, and educational technology. Wherever possible, existing validated measurement scales (such as perceived stress or study engagement scores) will be modified to ensure that constructs are reliably measured. Before collecting all of the data, a pilot study will be conducted to identify any confusing or unclear enquiries.

Reliability standardised data gathering tools and processes will be used to ensure . Closed-ended survey questions with Likert scales will assist assure response consistency, and internal reliability will be evaluated using statistical measures such as Cronbach's alpha. Clear instructions will be given to participants to reduce response variability caused by misunderstanding.

Generalisability refers to how far findings can be applied beyond the sample. To promote generalisability, the study will recruit individuals from various academic areas and levels of higher education. While the sample size is restricted, quantitative methodologies allow for the identification of trends that may be transferable to similar student populations.

This research is heavily influenced by **ethical considerations**. Before data collecting begins, ethical permission will be obtained. Participation will be completely voluntary, with all participants providing informed consent. Students will be told that they have the ability to withdraw at any time without penalty. Data will be anonymised and securely stored in accordance with data privacy legislation. Given the project's focus on wellness, effort will be taken to prevent intrusive or uncomfortable enquiries, and support services will be provided as needed [1]

Question 2.

Research Strategies and Data Collection Methods

This study will use a quantitative research technique, supplemented by a minor exploratory qualitative component during the pilot stage. An online questionnaire distributed to higher education students will serve as the major means of data collection.

The questionnaire will collect the following:

Demographic data (e.g., level of education, discipline)

Frequency and nature of productivity or wellness app use

The perceived impact of app features on time management, stress, and motivation.

Self-reported academic productivity indicators

Likert-scale questions will be used to assess attitudes and perceptions, allowing for statistical examination of the link between app usage and productivity or wellness outcomes.

Question 3.

Quantitative and Qualitative Data Analysis

The study's main focus will be quantitative analysis. Descriptive statistics (means, frequencies, and percentages) will be used to summarise app usage trends and student attitudes. Inferential analysis, such as correlation analysis, can be used to investigate the links between app usage frequency and perceived productivity or wellness results. The data will be examined using statistical tools such as SPSS or Excel.

Although the study is predominantly quantitative, some qualitative analysis may be included in the pilot phase. Thematic analysis will be used on open-ended feedback answers to identify common themes (e.g., usability issues or missing features). This helps to enhance the study instrument and increases overall validity [2].

The research achieves a balanced approach by integrating structured quantitative analysis with restricted qualitative insights while remaining true to its positivist philosophy.

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References

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- [1] H.-D. Chung, "Creative Confidence: Unleashing the Creative Potential Within Us Alby Tom Kelley and David Kelley," *Journal of Business & Finance Librarianship*, vol. 19, no. 2, pp. 168–172, Apr. 2014, Doi: <https://doi.org/10.1080/08963568.2014.883249>.
- [2] E. Balkaya, "Andrew McAfee ve Erik Brynjolfsson, Makine-Platform-Kittle: Digital Gelicia Kucaklamak, İstanbul: Optimist Yayın Grubu, 2018, 423 s.," *Journal of Humanity and Society (insan & toplum)*, vol. 11, no. 3, pp. 273–277, Sep. 2021, Doi: <https://doi.org/10.12658/d0298>.
- [3] J. TIDD and J. BESSANT, "INNOVATION MANAGEMENT CHALLENGES: FROM FADS TO FUNDAMENTALS," *International Journal of Innovation Management*, vol. 22, no. 05, p. 1840007, Jun. 2018, Doi: <https://doi.org/10.1142/s1363919618400078>.
- [4] N. M. Radziwill, "The Fourth Industrial Revolution," *Quality Management Journal*, vol. 25, no. 2, pp. 108–109, Apr. 2018, Doi: <https://doi.org/10.1080/10686967.2018.1436355>.
- [5] M. Turilli and L. Floridi, "Cloud Computing and its Ethical Challenges," *SSRN Electronic Journal*, 2009, Doi: <https://doi.org/10.2139/ssrn.3850031>.
- [6] T. Adams and F. Cras born, "Preservice teachers' use of a mobile app to capture learning moments in the workplace," *Teaching and Teacher Education*, vol. 171, p. 105331, Mar. 2026, Doi: <https://doi.org/10.1016/j.tate.2025.105331>.
- [7] N. Afsharid, "Exploring the Philosophical Assumptions in Social Education Research," *Journal of Education and Learning*, vol. 14, no. 1, pp. 73–73, Sep. 2024, Doi: <https://doi.org/10.5539/jel.v14n1p73>.
- [8] S. Hay, W. Beamish, and D. Chambers, *Advancing inclusive education for students with special educational needs: Rethinking policy and practice*. Frontiers Media SA, 2025.
- [9] Z. Hu, Sergey Petukhov, and M. He, *Advances in Artificial Systems for Medicine and Education III*. Springer Nature, 2020
- [11] A. Bryman, *Social Research Methods*, 5th ed. Oxford: Oxford University Press, 2016. Available: <https://ktpu.kpi.ua/wp-content/uploads/2014/02/social-research-methods-alan-bryman.pdf>
- [12] J. W. Creswell and J. D. Creswell, *Research design: Qualitative, quantitative, and Mixed Methods Approaches*, 5th ed. London: SAGE Publications, 2018.
- [13] M. Denscombe, *The good research guide : research methods for small-scale social research projects*, 7th ed. London: Open University Press, 2021.
- [14] V. Braun and V. Clarke, *Successful Qualitative Research: A Practical Guide for Beginners*. London: Sage, 2013.
- [15] H. De, Lise Tevik Løvseth, M. Christensen, and Kevin Rui-Han Teoh, *Healthy Healthcare: Empirical Occupational Health Research and Evidence-Based Practice*. Frontiers Media SA, 2020.