



FIT2002 – A3, Part 2

DELIVERABLE 2: AGILE DELIVERABLES AND REFLECTIVE WRITING

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Generative AI Declaration:

OpenAI ChatGPT 4o has been *selectively* used in this piece for research purposes, **some** anecdotal evidence, grammatical corrections, sentence structuring and enhance overall understanding.

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1. AGILE PROJECT FOUNDATIONS

1.1. PROJECT VISION AND REQUIREMENTS

1.1.1. VISION

The **Moodle IntelliQuiz: Adaptive Learning & Engagement Suite** is a key deliverable of the Digital Learning Spaces Enhancement Project, designed to equip Monash University's faculty and students with advanced digital learning tools. Current platforms limit faculty in creating engaging, accessible, and effective assessments; leaving students disengaged due to static, impersonal tools that fail to support diverse learning needs (Salmon, 2019).

This project enhances Moodle quizzes with AI-driven feedback, gamification, and accessibility upgrades that align with 2025 education standards, advancing the University's hybrid and flexible learning initiatives (Garrison & Vaughan, 2013).

1.1.2. PROBLEM

The current Moodle quiz system lacks adaptability, interactivity, and accessibility. Faculty struggle with inefficient workflows, limited assessment tools, and time-consuming feedback processes (Laurillard, 2012). Students endure low motivation and engagement due to repetitive, one-size-fits-all quizzes that lack accessibility features like text-to-speech and adaptive formatting (Burgstahler, 2021).

This gap limits Monash University's ability to lead in digital education. Addressing these issues fosters innovation, inclusivity, and academic excellence which aligns with the University's broader mission while also standing with global standards and the UN Sustainable Development Goals (SDGs) (United Nations, 2015).

1.1.3. PURPOSE

To create an inclusive and engaging environment where enhanced Moodle quizzes enable collaboration, personalised assessments, actionable insights into student performance and a connected learning community.

1.1.4. LONG-TERM GOALS

- Digitally enhanced learning spaces that evolve with emerging technologies (Garrison & Vaughan, 2013).
- Intuitive tools for assessment creation, grading, and performance tracking.
- Interactive and engaging assessments that drive deeper learning and motivation (Salmon, 2019).
- Inclusive and accessible digital solutions, ensuring WCAG 2.1 compliance (W3C, 2018).
- Alignment with SDGs 4 & 9, positioning Monash as a leader in innovative digital education.

1.1.5. STAKEHOLDER IMPACT

- **Students:** Enhanced engagement and motivation through interactive quizzes, real-time AI feedback, and gamification, improving retention and performance.
- **Faculty:** Reduced grading workload, better insights into student performance, and customisable assessments, enabling adaptive teaching strategies.
- **Monash University:** Strengthened reputation as a leader in digital education, supporting student success, inclusivity, and industry-aligned learning innovation.

1.1.6. AGILE ALIGNED PROJECT REQUIREMENTS

1. Develop AI-powered real-time feedback.
2. Introduce gamification features to enhance engagement.
3. Implement text-to-speech and adaptive formatting.
4. Create interactive multimedia quiz templates.
5. Build a learning analytics dashboard.
6. Develop a drag-and-drop quiz creation tool.

1.2. SCRUM PERSONAS

1.2.1. PERSONA 1: DR. KEVIN THOMPSON

ROLE

Senior Lecturer in Computer Science, Monash University.

BACKGROUND

Kevin has over a decade of teaching experience, specialising in artificial intelligence and software development. Despite his expertise, he finds it challenging to leverage digital tools to enhance student engagement effectively.



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1: (SHUTTERSTOCK. N.D.)

GOALS

- Deliver interactive and engaging assessments beyond rote memorisation.
- Automate personalised feedback to improve student learning.
- Easily track and analyse student performance trends to tailor teaching approaches.
- Ensure equitable assessment accessibility for diverse student needs.

NEEDS

- A user-friendly quiz creation tool with drag-and-drop functionality.
- AI-powered feedback to streamline grading and provide explanations.
- Gamified activities to enhance student engagement and motivation.
- A centralised analytics dashboard for real-time performance tracking.

FRUSTRATIONS/PAIN POINTS

- Moodle quizzes lack interactivity and adaptability, making them uninspiring.
- Assessments are time-consuming to create, limited to basic formats that are lacklustre.
- Manual grading is tedious, reducing work efficiency.
- Difficult to identify at-risk students needing additional support.
- Moodle lacks teamwork features such as peer reviews and live discussions.

BEHAVIOURAL INSIGHTS

- Values efficiency and automation, frequently using AI tools.
- Regularly reviews student data for performance insights.
- Open to new technologies but prefers those with minimal learning curves.
- Sends feedback primarily via University email, sometimes through Ed, and seeks to integrate this with digital assessments.

1.2.2. PERSONA 2: SIMRAN KAUR

ROLE

Second Year Bachelor of Information Technology student, Monash University.

BACKGROUND

An international student from Punjab, India, Simran is passionate about software development but struggles with adapting to self-directed and asynchronous learning and, digital assessment platforms. As English is her second language, she finds technical terminology and fast-paced content challenging.



2: (SETHI, D. 2018)

GOALS

- Engage in structured, interactive assessments that reinforce learning.
- Receive timely, specific feedback for continuous improvement.
- Develop technical problem-solving skills through assessments.
- Adapt to Australian academic and communication standards and, digital learning tools.

NEEDS

- Clear, easy-to-understand instructions with explanations for complex questions.
- Real-time AI feedback with step-by-step solutions for error analysis.
- Gamified features to maintain motivation during asynchronous learning.
- Mobile-friendly Moodle access for study on public transport.

FRUSTRATIONS/PAIN POINTS

- Static, repetitive quizzes that do not reinforce learning effectively.
- Generic feedback that fails to highlight personalised improvements.
- Lack of accessibility features (e.g., text-to-speech, adaptive formatting).
- Minimal interactivity, making assessments tedious.
- Inconsistent formatting across subjects, causing confusion.

BEHAVIOURAL INSIGHTS

- Prefers interactive, gamified learning tools like Kahoot and Quizlet.
- Studies late at night due to time zone differences with family.
- Motivated by progress tracking, leaderboards, and visual indicators.
- Often revisits quizzes multiple times for reinforcement.
- Uses a mobile-first approach for learning and prefers collaborative discussions.

1.2.3. REFLECTION

Moodle IntelliQuiz addresses both Kevin's and Simran's frustrations and pain points by improving engagement, accessibility, efficiency, and analytics.

Kevin struggles with manual grading, static quizzes, and a lack of student performance insights, causing difficulty in identifying at-risk students and providing timely feedback. The upgrade aims to aid him through AI-powered automated feedback, drag-and-drop quiz creation, structured question formatting, and a real-time analytics dashboard, reducing his workload and enhancing teaching effectiveness.

Simran faces motivation issues, accessibility barriers, and inconsistent assessment formats, which the upgrade intends to resolve through gamified elements, adaptive feedback, mobile-friendly access, standardised question structures, and text-to-speech functionality. This ensures a personalised, inclusive, and effective learning experience for all users, faculty and staff.

1.3. CRITICAL USER JOURNEY MAP – SIMRAN

| Stage | Stage 1: Pre-Quiz Engagement | Stage 2: Attempting the Quiz | Stage 3: Receiving Feedback | Stage 4: Review & Reinforcement | Stage 5: Retesting & Progress Evaluation |
|--------------------------------|---|--|--|--|--|
| User Action | Logs into Moodle, browses quizzes, and selects an assessment. | Begins quiz, answers questions, interacts with elements. | Submits the quiz and receives AI-driven real-time feedback. | Reviews past quizzes, analyses feedback, and revises weak areas. | Retakes quizzes or new versions to test improvement and track progress. |
| Pain Points | <ul style="list-style-type: none"> - Unclear instructions, inconsistent formatting. - No mobile-friendly design for on-the-go studying. | <ul style="list-style-type: none"> - Repetitive, unengaging questions reduce motivation. - Lack of accessibility features like text-to-speech. | <ul style="list-style-type: none"> - Generic feedback lacks specific improvement suggestions. - No step-by-step breakdown of mistakes. | <ul style="list-style-type: none"> - Limited ability to revisit past responses. - No gamified progress tracking to boost motivation. | <ul style="list-style-type: none"> - No clear progress tracking system. - Limited retesting options to measure improvement. |
| Emotion | <i>Anxious</i> about quiz format and unclear expectations. | <i>Frustrated</i> by lack of engagement and accessibility barriers. | <i>Uncertain</i> about how to improve future performance. | <i>Motivated</i> but lacks direction for structured improvement. | <i>Empowered</i> if progress is visible or <i>discouraged</i> if no measurable improvement is seen. |
| | 😓😓 | 😓😓 | 😓😓 | 😓😓 | 👏👏 |
| Opportunities/Solutions | <ul style="list-style-type: none"> - Provide clear quiz instructions and mobile-friendly UI. - Ensure consistent question formatting across subjects. | <ul style="list-style-type: none"> - Introduce gamified elements (progress bars, badges). - Improve accessibility features (text-to-speech, contrast adjustments). | <ul style="list-style-type: none"> - Implement AI-driven personalised feedback with step-by-step explanations. - Show comparative insights (past vs. current performance). | <ul style="list-style-type: none"> - Enable quiz review mode with insights into mistakes. - Add progress tracking graphs and peer discussion forums. | <ul style="list-style-type: none"> - Develop adaptive quizzes based on past performance. - Introduce weekly mastery quizzes to encourage progress. |
| User Story Link | Story 2.2., 2.3. | Story 2.1., Story 2.3. | Story 1.1., 1.3. | Story 1.2., 2.1. | Story 1.3., 2.1. |
| Stage Justification | This stage ensures students are prepared, making quiz navigation intuitive and accessible. | Engaging quiz designs prevent disengagement and support diverse learning needs. | Detailed AI-driven feedback helps students understand errors and improve in real-time. | Reviewing quizzes supports long-term retention and skill-building. | Retesting reinforces learning and tracks progress for measurable improvements. |

2. AGILE PLANNING AND SPRINT ALLOCATION

2.1. EPICS AND BACKLOG

| Epic | User Story | Priority (MoSCoW) | Justification |
|--|---|-------------------|---|
| 1. AI Powered Feedback & Learning Analytics | Story 1.1. AI-Generated Real Time Feedback | Must Have | Essential for learning retention, error correction and reducing manual grading workload. |
| | Story 1.2. Performance Analytics Dashboard | Must Have | Enables early intervention and personalised teaching adjustments. |
| | Story 1.3. Question Level Response Analytics | Must Have | Identifies difficult topics, helping faculty refine future assessments. |
| 2. Gamification & Accessibility Enhancements | Story 2.1. Gamified Progress Tracking & Badges | Must Have | Increases motivation and quiz completion rates. |
| | Story 2.2. Mobile Optimised Quiz Interface | Should Have | Improves convenience for mobile dependent students but not essential for quiz completion. |
| | Story 2.3. Accessibility Features (text to speech & formatting) | Should Have | Enhances quiz inclusivity but quizzes remain functional without it. |

2.2. SPRINT ALLOCATION

| Sprint | Sprint Objective | User Stories | Assigned Priority | Dependencies | Team Capacity (Story Points) | Release Phase | Default Sprint Length (2 weeks) Adjustment? |
|-----------------|--|---|-------------------|---|------------------------------|---------------|---|
| Sprint 1 | Develop core AI-driven feedback mechanisms | Story 1.1 (Phase 1) – AI-Generated Real Time Feedback | Must Have | None (Standalone Feature) | 29 | Beta | Yes* |
| Sprint 2 | Implement analytics for faculty and refine AI feedback | Story 1.2. Performance Analytics Dashboard Story 1.3. Question Level Response Analytics | Must Have | Depends on Story 1.1. for data collection | 20 | Beta | No |
| Sprint 3 | Introduce gamification and engagement features | Story 2.1. Gamified Progress Tracking & Badges | Must Have | Can be tested alongside Story 1.1. & Story 1.2. | 20 | Beta | No |
| Sprint 4 | Improve accessibility and mobile usability | Story 2.2. Mobile Optimised Quiz Interface Story 2.3. Accessibility Features (text to speech & formatting) | Should Have | Independent but benefits from AI-feedback and analytics testing | 12 | Full Release | No |

Sprint 1: Core AI Feedback System

Establishes the foundation for real-time AI-driven feedback, which is critical for improving student learning and reducing faculty workload. This must be developed and tested first to ensure accuracy and meaningful feedback before analytics and gamification are implemented.

Length Adjustment Justification

Story 1.1. is allocated entirely to Sprint 1 which extends beyond the typical two-week sprint length. This is due to the multifaceted workload involving complex AI integration, Natural Language Processing (NLP) processing and rigorous testing. Development involves training AI models to generate context-aware feedback, integrating with Moodle APIs, and ensuring real-time response processing without performance degradation. NLP techniques must handle varied question types, requiring iterations for accuracy. Faculty validation ensures educational relevance, while load testing confirms scalability. Hence, to be able to deliver the increment and therefore Minimum Viable Product (MVP) for the AI-driven feedback Moodle quiz feature to the Product Owner (PO) and the University (and the relevant client sided stakeholders), Sprint 1 must be lengthened to four weeks.

Sprint 2: Performance Analytics

Introduces data-driven insights for faculty by implementing student performance tracking and question-level analytics, both of which rely on data from AI feedback (Sprint 1). Early testing allows faculty to provide feedback on usability and necessary refinements.

Sprint 3: Gamification Features

Adds progress tracking and badges to enhance student engagement, building on the AI feedback and analytics established in previous sprints. Testing these elements alongside existing features ensures that gamification aligns with real learning improvements rather than being a standalone add-on.

Sprint 4: Accessibility and Mobile Optimisation

Focuses on text to speech, formatting options, and mobile compatibility to enhance inclusivity and usability. This is introduced last to avoid conflicts with previous features and ensure that accessibility improvements are applied to a stable and tested system before full release.

2.2.1. AGILE TRADE-OFFS & RISK CONSIDERATIONS

Scenario 1: Faculty feedback from Sprint 1 indicates that AI feedback is useful, however, they need faster access to student progress tracking

- Fast track a basic version of the performance analytics dashboard in Sprint 2 to provide early faculty insights while refine more advanced features in Sprint 3,

Scenario 2: After Sprint 2 testing, student report difficulty understanding quiz structures and feedback explanations.

- Introduce an interactive guided tutorial in Sprint 3 to improve student onboarding before full release.
- Ensure this tutorial explains AI feedback interpretation and gamification features.

Scenario 3: Sprint 3 testing reveals delays in AI-generated feedback, impacting quiz usability.

- Focus Sprint 4 on performance optimisation, ensuring efficient AI feedback processing before launch.
- Implement asynchronous feedback processing where possible to reduce quiz response times.

2.2.2. TEAM CAPACITY ESTIMATION & JUSTIFICATION

The team capacity estimations are a reasonable representation to balance complexity, workload, and resource availability. Sprint 1 is 29 points, reflecting the high effort required for AI training and Moodle integration, both demanding significant developer and Machine Learning expertise. With a 5–7-member team, this ensures parallel work without overload. Later sprints are capped at 12-20 points to support iterative refinements and testing, maintaining steady progress while preventing bottlenecks. This structured approach optimises feasibility, workload distribution, and sprint focus for sustainable development.

2.2.2.1. AVERAGE SPRINT VELOCITY CALCULATION

TABLE 1: SPRINT TEAM CAPACITY (STORY POINTS) SUMMARY

| SPRINT | TEAM CAPACITY (FIBONACCI) |
|---|---------------------------|
| Sprint 1: Develop core AI-driven feedback mechanisms | 29 |
| Sprint 2: Implement analytics for faculty and refine AI feedback | 20 |
| Sprint 3: Introduce gamification and engagement features | 20 |
| Sprint 4: Improve accessibility and mobile usability | 12 |
| | |
| Sprints Total | |

$$\begin{aligned} \text{Average Sprint Velocity} &= \frac{\text{Sprints Total}}{\text{Total Number of Sprints}} \\ &= \frac{81}{4} \\ &= 20.25 \text{ story points} \end{aligned}$$

The screenshot shows a Trello board for a project named 'FIT2002_G207_A3_P1'. The board is in 'Board' view and is organized into five columns: 'PRODUCT BACKLOG', 'TO DO (SPRINT BACKLOG)', 'IN PROGRESS', 'BLOCKED', and 'DONE'. The 'IN PROGRESS' column contains three cards, and the 'DONE' column contains two cards. A red box highlights the 'PRODUCT BACKLOG' and 'TO DO' columns. A red arrow points to the 'Add another list' button. A red box highlights the 'Filters' button and the user avatars (AB, CB, JD, YW). A red box highlights the 'E1: Manage Points and Scoring System S1' card in the 'DONE' column. A red arrow points to the 'Task delegation/assignment' text. A red box highlights the 'E1: Manage Points and Scoring System S1' card in the 'DONE' column, showing the 'Members' section with the user avatars (AB, CB, JD, YW) and the 'Dates' section.

Board swimlanes

Shared board members
↳ Scrum Pillar
'Transparency'

Date started + Date completed.

Epic title

Story Title

Task delegation assignment.

User story:

Dot-point 
format

E1: Manage Points and Scoring System **E1: Earn points for correct answers**

in list **DONE**

Moscow priority allocation.

Members **Labels** **Notifications**

AB **+** **MUST HAVE** **+** **Watch**

Dates

24 Jan - 10 Feb, 12:39 **Complete**

Description **Edit**

As a student, I want to receive points for each correct answer so that I feel motivated to perform better.

Acceptance Criteria **Hide checked items** **Delete**

100%

- ☒ Receive predefined points for each correct answer upon submission
- ☒ The total score updates dynamically after each correct answer and is displayed on the quiz interface
- ☒ Earn extra points for answering within a set time limit (if enabled by teacher)
- ☒ Points are logged, tracked and displayed on the student's profile after quiz is finished and exited

Add an item

Power-Ups

- +** **Add Power-Ups**

Automation **+** **Add button**

Actions

- **Move**
- **Copy**
- **Mirror**

Activity **Show details**

2.3. SPRINT 1 EXECUTION PLAN – MOODLE INTELLIQUIZ: ADAPTIVE LEARNING & ENGAGEMENT SUITE

2.3.1. SPRINT OBJECTIVE

Develop and integrate an MVP version of AI-generated real time feedback for Moodle quizzes, enabling basic automated responses for select question types while establishing the foundation for iterative improvements in Sprint 2.

2.3.2. PLAN

| User Story | Task Breakdown | Priority (MoSCoW) | Estimated Effort (Fibonacci) | Dependencies | Acceptance Criteria |
|---|--|-------------------|------------------------------|---|---|
| Epic 1: AI Powered Feedback & Learning Analytics | | | | | |
| Story 1.1. <i>As a student, I want to receive AI-generated real-time feedback on my quiz responses so that I can immediately understand my mistakes, improve my learning, and refine my answers for future assessments.</i> | AI Model Development and Training | Must Have | 13 | Sample dataset for training ¹ | AI generates correct, incorrect, or partial credit feedback for at least two question types (MCQ & short answer). |
| | Moodle Integration and Backend Development | Must Have | 8 | Requires API access to Moodle's quiz system | System retrieves quiz responses in real-time, processes them, and stores AI-generated feedback for students. |
| | NLP Refinement and Contextual Feedback Adjustments | Must Have | 5 | Requires AI model from Task 1 to be trained before refining responses | AI feedback adapts to different student responses, ensuring meaningful and structured explanations. |
| | Usability Testing and Performance Optimisation | Must Have | 3 | Requires all previous tasks to be completed | Faculty and student testers validate that AI feedback is accurate, relevant, and generated within 1 second. |

¹ Dataset retrieval occurs during Project Initiation (pre-sprint phase/discovery stage – identifying data sources e.g. past Moodle quizzes, faculty provided samples, synthetic datasets and defining of data collection and compliance policies) and Sprint 0 (backlog refinement and technical preparation stage – preprocess existing quiz data ensuring format consistency, label data with correct, incorrect and partial answers to train AI properly, create synthetic student responses if real data is unable and finalise dataset by validation quality and executing data augmentation (if required) by expanding datasets with additional responses).

2.3.3. SPRINT COMPLETION CRITERIA – DEFINITION OF DONE (DoD)

Code and Feature Implementation

- AI feedback system is functional and integrated into Moodle quizzes.
- End-to-end workflow is complete, from student response input to AI-generated feedback display.
- Basic AI-generated feedback works for MCQs and short answers, with placeholders for future refinements.

Quality Assurance and Testing

- No critical bugs or blockers preventing real-time feedback delivery.
- Unit and integration testing are complete, ensuring stability and accuracy.
- System performance is validated, maintaining response times within acceptable limits.

Stakeholder Approval

- Faculty review and sign-off confirm AI feedback meets minimum educational expectations.
- A demonstration of the AI feedback feature integrated into Moodle quizzes and exhibiting correct functionality behaviour and usability properties

Documentation and Approval

- Code and API documentation are updated for continued development in Sprint 2.
- Feedback collection is established, ensuring insights for iterative improvements.

2.3.4. SPRINT 1 STRATEGIC JUSTIFICATION

Sprint 1 prioritises AI-generated real-time feedback as the foundation for future enhancements, ensuring students receive instant, actionable feedback while reducing faculty workload. This core feature enables subsequent analytics (Sprint 2) and gamification (Sprint 3) to build on meaningful data.

Early identification of task dependencies in data availability, AI model training, and Moodle integration prevent bottlenecks that could impair the project's progress. Clear sprint goals prevent scope creep by maintaining developmental focus on delivering a functional AI feedback system, avoiding impulsive feature expansion or gratuitous refinements. A well-defined DoD ensures unfinished work is not carried forward, guaranteeing each sprint delivers a fully implemented, testable feature that supports long-term scalability and aligning well with Agile best practices.

3. AGILE REFLECTION AND PROFESSIONAL DEVELOPMENT

3.1. REFLECTION ON AGILE GAME

Using the Gibbs' Reflective Cycle (Gibbs, 1988), I reflect on the Agile LEGO Simulation:

3.1.1. DESCRIPTION

As Scrum Master, I facilitated collaboration, removed blockers, and ensured sprint execution. In Sprint 1, poor backlog prioritisation led to low-value tasks being completed first, forcing rework on critical structures. Team members focused on decorative elements like trees and vehicles instead of laying roads and foundations, delaying core functionality.

In Sprint 2, misalignment issues surfaced as two members unknowingly built identical skyscrapers, while another started constructing a bridge before roads were completed, causing dependency bottlenecks. This misallocation of effort highlighted a lack of coordination and backlog clarity, leading to inefficiencies.

3.1.2. FEELINGS

Initially, I felt structured but hesitant due to my ISTJ personality, which according to 16Personalities (n.d.), values planning and predictability but prefers individual execution over extensive team collaboration. Seeing inefficiencies unfold was frustrating, as I instinctively sought clear workflows and structured delegation. However, reflecting on Agile's value "Individuals and Interactions over Processes and Tools" (Beck et al., 2001), I realised that my directive leadership approach was counterproductive to the iterative and adaptive nature of Agile.

As the team adjusted, I became more confident in my ability to guide collaboration rather than control decisions. I transitioned from micromanaging tasks to facilitating discussions, helping the team self-organise and prioritise work effectively.

3.1.3. EVALUATION

Daily stand-ups helped identify and correct misalignment, while task ownership improved efficiency. However, my structured approach resembled traditional project management, inadvertently creating a top-down hierarchy rather than fostering team autonomy. This contradicted Agile principles, reducing adaptability and self-organisation.

Additionally, our effort estimation was overly optimistic, as we underestimated task complexity and dependencies. The assumption that all team members could work independently led to bottlenecks when dependent tasks were incomplete, emphasising the need for realistic velocity tracking and iterative backlog refinement.

3.1.4. ANALYSIS

The simulation reinforced backlog prioritisation, dependency awareness, and iterative refinement as essential Agile practices. The Sprint 1 backlog mismanagement reflected real-world project delays caused by focusing on secondary tasks too early. Similarly, misalignment in Sprint 2, where duplicate structures were built, illustrated the risks of insufficient communication and shared understanding.

My preference for structured execution initially clashed with Agile's emphasis on flexibility and continuous adaptation. Through reflection, these lessons allowed me to reinforce the fact that a Scrum Master should facilitate collaboration rather than dictate workflows. The experience also demonstrated how poor effort estimation leads to overcommitment, reinforcing the need for data-driven velocity tracking and backlog adjustments.

3.1.5. CONCLUSION & ACTION PLAN

The simulation reinforced that effective backlog prioritisation, dependency management, and adaptive leadership are critical to Agile success. The importance of clear sprint goals and continuous iteration was evident, ensuring the team focused on high-value tasks while avoiding scope creep.

Moving forward in future Agile environment, I will further consider in a manner backlog management which ensures tasks are properly sequenced and dependencies are identified early. I will also improve effort estimation by using techniques like story mapping and velocity tracking, reducing overcommitment. As a Scrum Master, I will shift towards a facilitative leadership approach, supporting team autonomy and collaboration rather than structured task delegation.

Additionally, I will encourage regular retrospectives and iterative improvements, ensuring that Agile principles are upheld throughout project execution. By implementing these refinements, I aim to enhance project efficiency, team adaptability, and overall Agile maturity.

3.2. PERSONAL REFLECTION

My experience in learning about the domains of project management has been highly positive, reinforcing my aspiration to become both a Project Manager and Scrum Master as key milestones in my career in technology. Understanding the evolution of project development approaches and the industry's shift toward adaptive methodologies has deepened my appreciation for Agile's role in modern project environments. While I previously had a solid understanding of development frameworks, tools, and methodologies, this unit has addressed gaps in my knowledge, particularly in understanding how project management approaches influence both client and end-user outcomes.

3.2.1. EVALUATION OF MY AGILE AND PROJECT MANAGEMENT SKILLS

Through this unit, I have developed a stronger grasp of Agile frameworks, sprint planning, stakeholder management and iterative development. I particularly enjoyed learning about Scrum and Kanban, as they highlight the importance of continuous improvement, adaptability, and cross-functional teamwork. My Scrum Master role in the Agile simulation allowed me to practice facilitating collaboration, managing sprints, and resolving blockers, reinforcing my confidence in this leadership position.

A key learning point was how Agile contrasts with traditional project management in leadership style and decision-making. In Assignments 1 and 2, where task requirements were defined upfront, using predictive cost analytical tools like Present Value, Return on Investment and Earned Value Management and, task execution and team demonstrations were sequential and linearly occurring, I naturally assumed a top-down leadership role, as it aligned well with the structured nature of those activities. However, during team activities in Assignment 3 and the LEGO Game Simulation, it was evident this approach did not integrate well with Agile principles. My instinct to direct and assign tasks led to inefficiencies. This highlighted the need for me to transition from directive leadership to coaching, where I now realise my role as Scrum Master should focus on removing obstacles, facilitating discussions, and empowering the team to make decisions.

Since taking this unit, my keen interest and ambition to become a Project Manager has cemented, with the goal of also becoming a Scrum Master a new and welcomed aspiration. While I was already interested in these roles due to numerous relatives also being PMs, I now see these roles as key drivers in a successful project by driving team efficiency, fostering collaboration, and ensuring high-value deliverables now, and in the future.

3.2.2. PROFESSIONAL DEVELOPMENT PLAN

To further develop my Agile and project management expertise, I plan to pursue formal project management certifications, such as:

- **Certified Scrum Master (CSM)**– To validate my Scrum knowledge and leadership abilities (Scrum Alliance, 2023).
- **PMI Agile Certified Practitioner (PMI-ACP)**– Recognised as one of the most comprehensive Agile certifications, covering multiple Agile methodologies, including Scrum, Kanban, Lean, and XP (Project Management Institute, 2021).
- **Professional Scrum Master (PSM I)**– To strengthen my understanding of Scrum best practices and facilitation skills (Scrum.org, 2023).

I aim to complete these certifications toward the completion of my studies in the Bachelor of Information Technology so that I can enhance my job prospects in 2026. Given my strong interest in Agile-heavy organisations, I will actively seek internship opportunities at KPMG, Deloitte, NAB, ANZ, Capgemini, Atlassian, and PwC, as these companies are recognised for their extensive Agile adoption in software development and digital transformation initiatives (Rigby et al., 2016).

By refining my leadership, sprint planning, and stakeholder management skills, I hope to stand out as a strong candidate for an internship as a business analyst, positioning my future career progression to one day become an excellent Project Manager in the future. This structured plan aligns with my career ambitions and will help me navigate the rapidly evolving Agile landscape in the tech industry.

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