

University of Melbourne: A Programme-Wide Framework for Teaching, Practicing and Assessing Teamwork

Shannon A. Rios^a and Sally A. Male^b

^a University of Melbourne, Australia, ORCID: [0000-0002-4559-9489](https://orcid.org/0000-0002-4559-9489);

^b University of Melbourne, Australia, ORCID: [0000-0001-9852-3077](https://orcid.org/0000-0001-9852-3077).

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In this chapter we describe a framework for teaching, practicing, and assessing teamwork (TPAT) across a degree programme. Teamwork is crucial for engineering graduates, yet current curricula often lack a consistent, programme-wide approach to developing teamwork skills. Students are often expected to work in teams without sufficient explicit instruction. Additionally, degree programmes might lack design of scaffolding for and assessment of the incremental development of teamwork. Our framework, designed for The University of Melbourne's Infrastructure Engineering programme, addresses this by providing a systematic approach to support and assess attainment of teamwork competencies and skills throughout a student's degree journey. The framework was developed through a process, beginning with a review of key literature on teamwork in engineering education. From this literature review a common definition of teamwork was synthesised, comprising seven dimensions (adaptability, feedback, communication, coordination, collectivism, leadership, and empathy) and several associated behaviours. These were mapped across the degree programme to ensure structured skill progression. Feedback from module coordinators helped refine this mapping to align with the existing curriculum and teaching needs. Teaching and assessment activities were then identified and aligned with each behaviour to support academics looking to implement the framework. The TPAT framework provides educators with a clear guide for systematically embedding teamwork competencies and skills into their curricula and could be easily adapted to other engineering programmes.

1 Introduction

Teamwork skills are recognised as essential competencies for engineering graduates, critical not only for academic success but also for effective professional practice (Ercan & Khan, 2017). Despite this recognition, teamwork skills are frequently expected from students rather than explicitly taught, and assessment of teamwork is inferred instead of systematically assessed. This expectation often leads to inconsistent development of teamwork skills, creating challenges for both students and educators.

In the University of Melbourne's Infrastructure Engineering programme, academics regularly faced uncertainty regarding which specific teamwork skills they could expect from students and felt they had to assume students had little to no prior skills. This was because the existing curriculum lacked consistency in defining and developing teamwork skills, and in adequately assessing those skills, resulting in a fragmented student experience and uneven skill progression across the degree programme. Based on these issues, the programme educational leader identified a pressing need for a structured and coherent programme-based approach to teaching and assessing teamwork skills and reached out to the faculty teaching support unit for help.

To address these challenges, we implemented a programmatic approach to teaching and assessing teamwork across a whole degree programme. Our primary goal was to provide clear engineering-specific definitions of teamwork, ensure progressive skill development throughout a student's academic journey, and help academics to design effective teaching and assessment activities they could implement in their modules.

In this chapter, we first detail the multi-stage process of developing our teamwork framework, including synthesising a coherent list of effective teamwork behaviours comprised of seven key dimensions: adaptability, feedback, communication, coordination, collectivism, leadership, and empathy. Second, we describe how these dimensions were mapped across the degree programme and embedded into modules, as well as the ongoing challenges in implementing this framework. Third, we present case studies highlighting three different approaches to implementing the framework in a module. Finally, the chapter concludes with a SWOT analysis and user guide.

1.1 University of Melbourne context

The University of Melbourne is a research-intensive institution with over 50,000 students across nine faculties. The teamwork framework presented in this chapter was implemented by the Faculty of Engineering and Information Technology's (FEIT) Teaching and Learning Laboratory (TLL) for the Infrastructure Engineering (IE) department. The TLL is a faculty-wide division that supports research-informed enhancements to learning and teaching in engineering and information technology through capability development and support for faculty staff. The IE department delivers seven Washington Accord-accredited master-level degree programmes, such as civil, environmental, and digital infrastructure engineering, and oversees several majors in undergraduate degrees. Undergraduate students typically complete a Bachelor of Science or Design with a relevant engineering major before progressing

to their chosen master programme in a 3+2 model of a 3-year bachelor and a 2-year master programme.

In our framework, we identified a taxonomy of effective teamwork behaviours across seven dimensions that should be demonstrated by an effective team member. While some of these behaviours are captured in this handbook's definition of teamwork (See Chapter 2.6 and the Glossary), others are more specific, or include skills from other categories, such as leadership or communication. In the following section, we present our definition of teamwork and connect it to the transferable competencies and skills defined in the earlier chapters of this handbook.

2 Competencies and skills development

In this section we present the key teamwork literature that we used to develop a working definition of teamwork, and the process we followed to synthesise that definition. In particular, we outline our overall approach to defining teamwork, key literature that has informed our definition, our taxonomy of teamwork behaviours, and the current iteration of our framework for teaching, practicing and assessing teamwork.

2.1 *Creating a framework for teaching, practicing and assessing teamwork (TPAT)*

In creating the Teaching, Practicing and Assessing Teamwork (TPAT) framework, we took a structured approach to defining what constitutes effective teamwork within the context of engineering education, as there was not a suitable existing definition, especially one that was designed for assessment in an engineering context. Our approach involved an extensive review of existing literature, consultation with module coordinators, and iterative refinement to ensure the definition was both practical and comprehensive.

The foundational literature underpinning our taxonomy and framework included Salas et al.'s work on the 'big five' in teamwork (2005), Boelt et al.'s (2023) thematic analysis of teamwork in problem-based learning, Chowdhury and Murzi's (2019) extensive review of teamwork in engineering education, the Comprehensive Assessment of Team Member Effectiveness (CATME) dimensions developed at Purdue University (Ohland, 2012), and the *Engineering thresholds: An approach to curriculum renewal* (Male, 2012). Additionally, we integrated insights from Engineers Australia's Stage 1 competency standards (Engineers Australia, 2019), which emphasize effective team membership and leadership skills, and Fletcher's (2015) work on gender, power, and relational work.

From this work we identified dozens of behaviours which we grouped into seven dimensions synthesised from the literature: adaptability, communication, coordination, collectivism, empathy, feedback, and leadership. We then refined the list by sharing and discussing it with academics who teach modules with significant teamwork elements. Tables 4.8.1 shows the final list of behaviours, which we mapped to the most relevant transferable competencies and skills based on the definition presented in Chapter 1.5.

*Table 4.8.1: Taxonomy of teamwork behaviours (Rios and Male, 2025), aligned to the transferable competencies and skills listed by Leandro Cruz & Saunders-Smits (2019). * = added during discussions*

<i>Taxonomy of teamwork behaviours</i>	<i>Transferable competencies and skills</i>
Adaptability	
Adjusts strategies when needed (Boelt, 2023; Male, 2012; Salas, 2005)	Innovation competencies: critical thinking, problem solving
Effectively deals with disruptions to team cohesion (Chowdhury & Murzi, 2019; Salas, 2005)	Teamwork competencies: managing conflict
Fills gaps in team skills as needed (Chowdhury & Murzi, 2019; Ohland, 2012; Salas, 2005)	Teamwork competencies: interdisciplinary collaboration
Maintains broad knowledge of team's goals and work (Salas, 2005)	Teamwork competencies: goal setting
Acquires new skills when needed to improve team performance (Chowdhury & Murzi, 2019; Ohland, 2012)	Lifelong learning competencies: actively seeking learning
Collectivism	
Prioritises team goals (Chowdhury & Murzi, 2019; Ohland, 2012; Salas, 2005)	Teamwork competencies: goal setting
Develops relational knowledge of team roles in context of operating environment (Boelt, 2023; Salas, 2005)	Teamwork competencies: interdisciplinary collaboration
Practices with mutual trust in each team member to fulfil their role and do excellent work (Chowdhury & Murzi, 2019; Ohland, 2012; Male, 2012; Salas, 2005)	Teamwork competencies: engagement in teamwork
Makes important contributions that improve the team's work (Chowdhury & Murzi, 2019; Ohland, 2012)	Teamwork competencies: engagement in teamwork
Helps teammates who are having difficulty (Ohland, 2012)	Teamwork competencies: engagement in teamwork
Participates fully in team activities (Ohland, 2012)	Teamwork competencies: engagement in teamwork

Communication

Practices active listening and closed-loop communication (Chowdhury & Murzi, 2019; Salas, 2005)	Communication competencies: listening skills
Communicates with respect (Boelt, 2023)	Communication competencies: adaptive communication style
Communicates using proper and agreed upon nomenclature (Boelt, 2023)	Communication competencies: adaptive communication style
Makes sure teammates stay informed and understand each other (Ohland, 2012)	Communication competencies: interconnection/interrelation ability
Uses diverse means of communication (drawings, writing, speech, etc.) as appropriate for the team	Communication competencies: quality of presentation method

Coordination

Takes into consideration others' time and availability (Boelt, 2023)	Teamwork competencies: time management
Communicates delays promptly. Monitors Progress (Boelt, 2023; Ohland, 2012)	Teamwork competencies: time management
Identifies and schedules team tasks and resource them appropriately as needed (Salas, 2005)	Entrepreneurial competencies: project management
Is punctual *	Teamwork competencies: time management
Maintains up to date records (e.g., calendar, project logs, other documentation) *	Entrepreneurial competencies: project management

Empathy

Recognises the value of and seeks out diverse viewpoints (Chowdhury & Murzi, 2019; Ohland, 2012; Male, 2012)	Teamwork competencies: cross-cultural understanding
Establishes a positive atmosphere (Chowdhury & Murzi, 2019; Salas, 2005)	Not present in list by Leandro Cruz & Saunders-Smiths (2019)
Is aware of and takes into consideration individuals' circumstance, position, background, or feelings (Male, 2012; Salas, 2005)	Teamwork competencies: cross-cultural understanding
Acknowledges the contributions of others (Fletcher, 2010)	Teamwork competencies: giving constructive feedback

Feedback

Provides constructive feedback to team members (Boelt, 2023; Chowdhury & Murzi, 2019; Ohland, 2012; Salas, 2005)	Teamwork competencies: giving constructive feedback
Seeks out feedback from peers (Boelt, 2023; Ohland, 2012; Salas, 2005)	Lifelong learning competencies: self-knowledge awareness
Critically reflects on received feedback (Chowdhury & Murzi, 2019)	Lifelong learning competencies: self-knowledge awareness
Take steps to improve based on feedback *	Lifelong learning competencies: actively seeking learning

Leadership

Directs and coordinates the activities of team members as needed (Boelt, 2023; Salas, 2005)	Entrepreneurial competencies: leadership
Motivates team members (Boelt, 2023; Chowdhury & Murzi, 2019; Ohland, 2012; Salas, 2005)	Entrepreneurial competencies: leadership
Fosters a collaborative and respectful culture within the team (Boelt, 2023; Chowdhury & Murzi, 2019; Salas, 2005)	Teamwork competencies: collaborative goal-oriented
Watches conditions affecting the team and manages the team progress (Boelt, 2023; Chowdhury & Murzi, 2019; Ohland, 2012; Salas, 2005)	Entrepreneurial competencies: project management
Alerts teammates and makes suggestions when problems arise (Chowdhury & Murzi, 2019; Ohland, 2012)	Teamwork competencies: managing conflict
Uses information available and sound judgement to make decisions (Boelt, 2023)	Innovation competencies: problem solving
Promotes the use of and defines processes of work (Chowdhury & Murzi, 2019)	Entrepreneurial competencies: project management

3 Implementation**3.1 Mapping and programmatic integration**

Once the teamwork definition was established, we drafted a mapping of when the behaviours should be attained across the programme. This mapping (Rios & Male, 2025), an excerpt of which is shown in Table 4.8.2, assigned behaviours to different year levels with the broad aim of introducing foundational skills in first and second

year and more advanced skills in third year and during the master programme. Concurrent with this, we surveyed every module in the programme to identify where students engaged in teamwork and whether it was taught, practised, or assessed. The survey findings helped us to pinpoint several core modules suitable for piloting the framework.

Table 4.8.2: Example behaviour mapping (Rios & Male, 2025)

<i>First year</i>	<i>Second year</i>	<i>Third year</i>	<i>End programme</i>
Collectivism			
-	-	Prioritises team goals	Prioritises team goals
Makes important contributions to the work	-	Collaborates on tasks when appropriate	Makes important contributions that improve the team's work
Takes on basic roles within a team (note taker, scheduler, leader, etc)	Identifies appropriate roles for a given project or group. Takes on one or more of these roles	Acknowledges the fluid nature of teamwork and adapts to new roles as the need arises	Develops relational knowledge of team roles in context of operating environment
Shares work evenly	Participates fully in team activities.	-	Participates fully in team activities
-	Helps teammates who are having difficulty	-	Helps teammates who are having difficulty
-	-	-	Practices with mutual trust in each team member to fulfil their role and do excellent work

Next, we held one-on-one meetings with academics teaching modules containing significant teamwork elements to gather targeted feedback on the draft mapping. Based on their input, we revised the mapping, moving some behaviours earlier or later in the sequence, adding progression levels where appropriate, and selecting three core modules to integrate the framework into. Selection was based on both academic buy-in and the suitability of the modules' teamwork activities and assessment structures for trialling the TPAT framework.

3.2 Supporting the framework

To support the adoption and implementation of the framework, we identified a range of teaching and learning activities along with exemplars that promote the development of teamwork skills and mapped these directly to the behaviours listed in the framework. We also identified possible assessment types suited to each behaviour, such as interviews, reflective writing, essays, and project logs. The purpose of these resources was to enable academics to independently choose approaches aligned with their module context.

In the initial stages, academics making changes to their modules were supported directly by learning designers, who provided guidance on designing and embedding teamwork-focused activities and assessments into the curriculum. Based on this work, we are currently building new resources, exemplars, and case studies that other academics can refer to when implementing their own changes without the need for significant additional support. These resources will serve as a practical reference for future academics, enabling them to design effective teamwork teaching and assessment activities that align with the TPAT framework without having to start from scratch.

It is important to note that much of the achievement in implementing the framework was possible due to the academic leadership of the programme. Their leadership was instrumental in creating buy-in and bringing together relevant and interested academics, while also putting forward one of their own modules for early adoption. At the same time, uptake has been slower than ideal due to this top-down approach, and as other priorities came up (e.g., a new assessment improvement project), it has been challenging to keep this project prioritised.

4 Curriculum design

In this section we discuss three case studies where we have used the framework to design the teaching, practice, and assessment of teamwork skills. Each case study highlights a different approach to using the framework, applied at a different level of study.

4.1 Case study 1: Engineering Technology and Society

Engineering Technology and Society is a first-year module that introduces students to engineering through a semester-long design project. Students work in teams of four, often for the first time in their academic journey, to collaboratively explore and address a societal issue, using engineering design principles. Recognising the foundational role this module plays in students' development, the teaching team used the TPAT framework to better structure and support the development of teamwork skills.

Motivation. This module has long had a comprehensive teamwork component, with group projects embedded in its curriculum since its inception. However, despite the extensive teamwork activities, the rationale and learning outcomes underpinning these activities were not always clear to students. Additionally, feedback from both students and staff indicated that although teamwork was being practised and taught,

its role as a professional skill requiring deliberate development was not sufficiently emphasised. The TPAT framework was adopted to provide a shared language for teamwork skills and to situate teamwork development within a broader professional learning trajectory.

Implementation. The TPAT framework was integrated into the module by mapping existing teamwork-related activities and assessments to the seven TPAT dimensions. The goal was to explicitly highlight to the students the teamwork skills they were developing and to encourage reflection on these behaviours as a key component of their professional formation. By doing this, the educators hoped that students would adopt a longer-term perspective on the development of their teamwork skills.

The TPAT framework was introduced in the second workshop of the semester, when student teams are formed. A presentation outlined each of the seven TPAT dimensions, along with examples of how module activities supported skill development.

Results. Integration of the TPAT framework into this module yielded promising outcomes. From the educators' perspective, it offered a structured language to explain the purpose behind teamwork activities, helping staff to clearly articulate expectations and learning goals, both to students and to each other. This clarity was especially valuable in a first-year context, where students are still developing their understanding of what it means to be an engineer.

Students responded positively to the early framing of teamwork as a professional skill and engaged meaningfully with the associated tasks. Use of project management tools such as Microsoft Teams was consistent across teams, and the team management plan prompted early discussion of team dynamics and expectations. However, reflections collected from teaching staff indicated that the delivery of the full TPAT framework in a single session may have overwhelmed some students. In future iterations of the module, coordinators plan to reinforce TPAT throughout the semester in smaller, context-relevant doses.

Importantly, the TPAT framework provided a way for students to begin understanding teamwork as a transferable skill. Several students expressed appreciation for seeing how their teamwork experience fitted into a broader developmental arc, and staff observed a shift in how students approached collaboration, with more attention paid to team roles, communication, and self-awareness.

4.2 Case study 2: Applying Digital Infrastructure

Applying Digital Infrastructure is a second-year project-based module, where students collaborate in teams of four on an eight-week engineering project. The project mirrors real-world professional practice, including both a tender and delivery phase. Historically, while teamwork was expected in this module, it lacked explicit structure and guidance, leading to mixed outcomes.

Motivation. As in many modules, teamwork in this module suffered from challenges in team dynamics and uneven contributions from students. Academics in the module also

noted that students were underprepared to manage complex teamwork scenarios, especially under time constraints, which resulted in late submissions and disengaged team members. While the technical aspects of the project were well scaffolded and appropriate for the year level, the teamwork was not, nor was it taught or specifically assessed. As such, the module coordinator hoped to use the TPAT to frame the expected skills and behaviours students should start to develop at this stage of their journeys, particularly in active group management.

Implementation. To address the above concerns, specifically concerns about students' leadership, collectivism, coordination, and communication skills, the module coordinator implemented the following changes.

Group formation activities. New group formation activities were designed to encourage early discussions of what effective teamwork looks like, and how challenges could be resolved. As well as icebreaker activities, these also included discussions of real-world teamwork case studies.

Team charter. After group formation, students created a team charter. In this activity students first reflect on their individual strengths, weaknesses, and skills before asking a series of structured questions addressing the team roles, norms, conflict management strategy, communication channels, and expectations. Language from the TPAT framework was used to communicate expectations of effective teamwork behaviours. The team charter existed as a living document and was reviewed twice over the semester after key milestones. During each review phase, students were encouraged to discuss the project so far, any issues that may have arisen and if their solution was effective. After this, students updated their charters if necessary and noted any changes in a teamwork management journal, which formed part of the final assessment.

Structured discussion assessment. The module culminated in an interactive oral assessment that takes the form of a performance review discussion with their project supervisor, counting for 25% of the final mark. During the discussion, students were asked to reflect on their experience of teamwork management and highlight their key takeaways from the process.

Result. The implementation of TPAT in this module produced several tangible outcomes that reflected its effectiveness in enhancing teamwork learning. Notably, all student groups successfully met project deadlines during both the tender and delivery phases, with only one of thirty teams reporting a major issue related to uneven contributions. This marked a significant improvement over previous offerings of the module, where late submissions and disengaged team members were more common.

Student reflections and responses to a voluntary end-of-semester survey indicated a shift in how students understood and approached teamwork. Many students reported developing a stronger awareness of teamwork processes, including coordination, communication, and shared responsibility. They described gaining practical experience in handling team dynamics, resolving conflicts, and appreciating the diverse perspectives and strengths that peers brought to the group. Students also highlighted

learning to manage group time effectively and delegating tasks equitably as skills they had gained.

While some students initially saw the group charter as a formality, others later acknowledged its value in setting clear expectations and serving as a reference point for navigating group challenges. The activity also promoted early team cohesion and encouraged students to reflect on their own contributions.

From the educators' perspective, the TPAT framework offered a practical tool for embedding teamwork more explicitly within the curriculum. It provided a shared vocabulary and structured approach for teaching and assessing teamwork behaviours, allowing staff to give more targeted and meaningful feedback. Overall, staff observed greater student ownership of group processes and a more professional mindset in how students engaged with the teamwork components of the module.

4.3 Case study 3: Interdisciplinary Design for Engineers

Interdisciplinary Design for Engineers is a compulsory module for all Master of Engineering students. This module focuses on developing students' transversal skills, in particular, communication, empathy, and teamwork, while teaching the principles of engineering design in the context of an interdisciplinary design project. The cohort consists of students from all engineering disciplines within the faculty including biomedical, chemical, civil, digital infrastructure, electrical and electronic, environmental, mechanical, mechatronics, and software engineering.

Motivation. This module was developed from the ground up with the TPAT framework in mind. At the master level, students are expected to enter the workforce with well-developed teamwork and communication skills, yet feedback from academics and industry consistently highlights variability in these competencies. Given the interdisciplinary nature of the module, teams are composed of students with highly diverse disciplinary knowledge, cultural backgrounds, and professional experiences, making it an ideal environment to intentionally develop and assess teamwork behaviours. The motivation was twofold: firstly, to provide explicit scaffolding for teamwork in a high-stakes, capstone-style design module; and secondly, to evaluate how the TPAT framework could be applied to support advanced-level teamwork in mixed-discipline cohorts.

Implementation. At the design stage, the teaching team identified the specific teamwork dimensions to prioritise for this module. Empathy, leadership, and feedback were chosen as the primary focus areas, in part because of their strong alignment with the module's interdisciplinary design learning outcomes. Language and behavioural descriptors from the TPAT framework were used to create rich, transparent descriptions for the assessment criteria.

The duration of the module was 12 weeks, with two 2-hour workshops per week. Three of these workshops were dedicated entirely to teamwork. The first workshop introduced team formation strategies, leadership principles, and empathy-building activities. The second focused on effective communication and feedback within the context of a team, and the final teamwork session was a self-directed activity in which

groups revisited their team charters and engaged in a scaffolded reflection on their collaborative processes.

Teamwork was assessed through multiple complementary measures: group reflections embedded in mid- and end-of-semester reports, peer feedback on oral presentations, an interactive oral assessment in the form of a group discussion, and an end-of-semester individual reflection. These were triangulated with educator observations and fortnightly project progress journals to provide a well-rounded view of each student's teamwork development.

Results. Overall, the introduction of the TPAT framework into this module was associated with positive teamwork outcomes. No significant group issues persisted beyond the assessment submission dates, suggesting that teams were able to resolve challenges effectively before they impacted deliverables. Student feedback frequently highlighted the value of the structured opportunity to develop and practise teamwork skills, with many noting that the interdisciplinary context broadened their perspective and enhanced their collaborative abilities.

From the teaching team's perspective, the implementation revealed areas for further enhancement. In particular, giving and receiving feedback — while addressed — could be more strongly embedded within assessment tasks to emphasize its importance and provide students with more practice in this skill. Looking ahead, there are plans to strengthen the triangulation of teamwork assessment through the inclusion of peer evaluation tools such as CATME and the use of more observational and interactive oral assessments, enabling more robust, multi-source evidence of teamwork behaviours.

5 Future outlook

The TPAT framework can be used as both a curriculum design tool and a review instrument to ensure that teamwork skills are systematically developed across a programme. At an institutional level, programme directors can begin by mapping existing modules against the framework's seven dimensions — adaptability, feedback, communication, coordination, collectivism, leadership, and empathy — to identify where each behaviour is introduced, practised, and assessed. This mapping helps reveal gaps, redundancies, and opportunities for more even scaffolding across year levels. Institutions may also integrate the framework into programme-level learning outcomes, aligning it with accreditation requirements and transversal skill definitions to ensure coherence across disciplines.

At the module level, academics can use the framework to design new learning activities, refine existing teamwork components, and select appropriate assessments for targeted behaviours. For example, they might align a peer assessment activity with the feedback dimension or develop a team charter exercise to support coordination and collectivism. The framework also serves as a communication tool to help students see the progression of their teamwork skills across their degree, fostering long-term professional skill development rather than treating teamwork as isolated to specific projects.

Finally, the framework continues to be developed by adding more supports, resources and instructions for academics looking to use the framework. Currently we are developing principles for designing assessments using the framework. Additionally, the framework will be further supported by a catalogue of case studies showcasing how other academics have used the framework in their curriculum.

SWOT analysis

In this Section, we present a short strengths, weaknesses, opportunities, and threats (SWOT) analysis to summarise the key benefits and challenges of the TPAT framework.

Strengths

- *Clear, programmatic structure.* Defines seven core teamwork dimensions with observable behaviours mapped across the degree programme, ensuring skill development is scaffolded.
- *Evidence-based foundation.* Developed from a comprehensive literature review and aligned with both industry expectations and accreditation standards (i.e., Engineers Australia Stage 1 Competency Standards).
- *Flexible implementation.* Can be used both for curriculum design and review, allowing module coordinators to adapt activities to their context.
- *Alignment with employability frameworks.* Positions graduates with demonstrable, industry-valued teamwork skills.

Weaknesses

- *Initial complexity for students.* Full framework presentation can overwhelm first-year students, suggesting a need for staged introduction.
- *Variable academic engagement.* Implementation relies heavily on coordinator willingness and capacity; without strong buy-in, uptake may be inconsistent.
- *Assessment not yet fully developed.* Current focus is on defining and mapping skills; robust, scalable assessment tools for each behaviour are still under development.
- *Resource dependency.* Successful integration requires supporting materials, guides, and professional development, which are not yet fully available.

Opportunities

- *Scaling across programmes and faculties.* Potential to embed in all engineering programmes, creating a unified approach to teamwork skill development.
- *Cross-institution collaboration.* Opportunity to share the framework and resources with other universities, contributing to best practice in professional skills education.
- *Longitudinal tracking.* Can be used to collect data on student skill progression across their degree, informing curriculum improvement and accreditation reporting.

Threats

- *Perceived curriculum overcrowding.* Competing priorities in degree programmes may be perceived to limit time and resources for explicit teamwork skill development when a siloed approach is taken.
- *Inconsistent application.* Without central oversight, variations in implementation could dilute programme-wide impact.
- *Assessment challenges.* Measuring behavioural competencies reliably across varied contexts may be difficult, risking credibility if poorly executed.

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AI statement

During the preparation of this work, the authors used ChatGPT to obtain feedback on and self-review our first draft. Based on the feedback from the AI tool we then made minor edits to adjust grammatical and structural issues. After using this tool, the authors reviewed, edited, and made the content their own as needed. They take full responsibility for the content of the publication.

Contributor statement

Conceptualisation	Shannon A. Rios, Sally A. Male, Stephan Winter
Data curation	Shannon A. Rios
Formal analysis	Shannon A. Rios
Investigation	Shannon A. Rios, Stephan Winter, Lionel Lam, Huey Chan
Methodology	Shannon A. Rios, Sally A. Male
Project administration	Shannon A. Rios
Supervision	Sally A. Male
Validation	Shannon A. Rios
Visualisation	Shannon A. Rios
Writing - original draft	Shannon A. Rios
Writing - reviewing and editing	Shannon A. Rios, Sally A. Male
