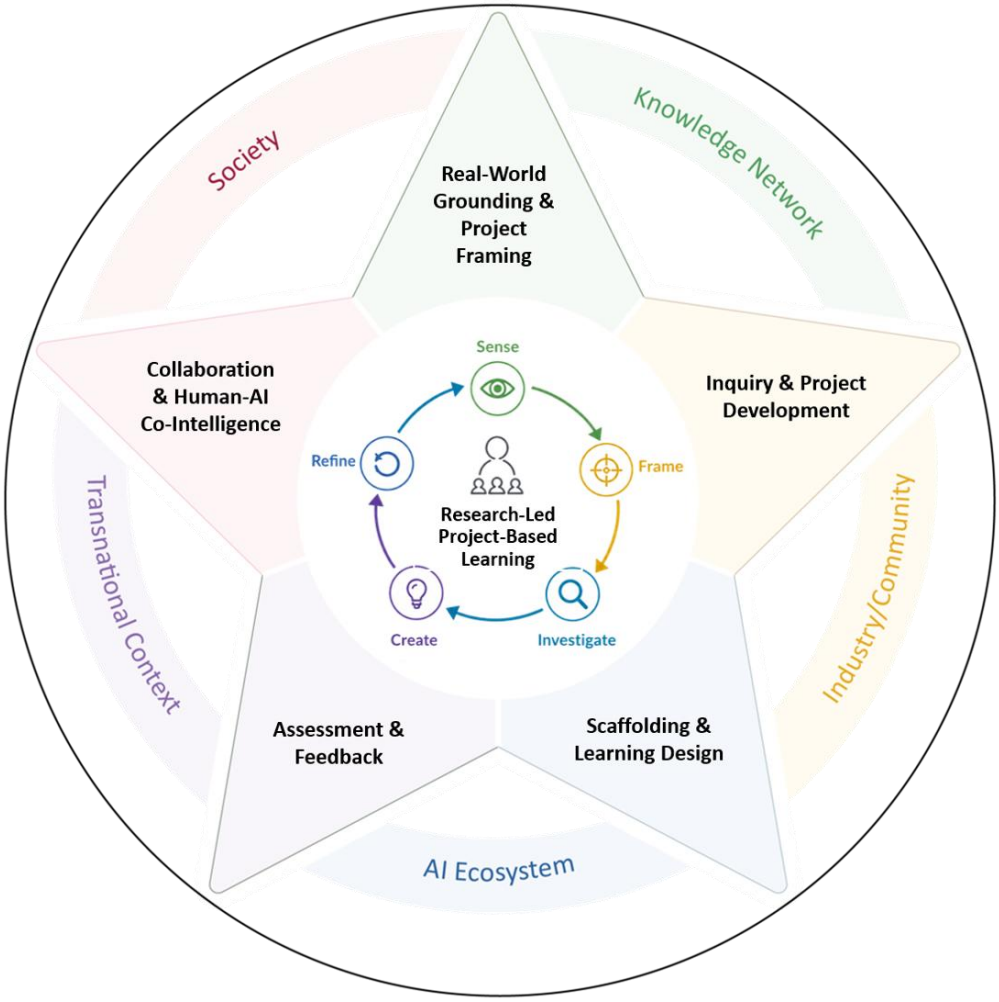
Why RLPBL?

Artificial intelligence is transforming how knowledge is created, accessed, and applied. While AI is increasingly capable of generating information, content, code, and possible responses, education remains essential for cultivating human capabilities such as curiosity, empathy, creativity, judgement, imagination, and the ability to recognise and frame meaningful questions, needs, challenges, and opportunities.

At XJTLU, Research-Led Project-Based Learning (RLPBL) seeks to cultivate these capabilities through authentic projects involving inquiry, collaboration, creation, iteration, and human-AI co-intelligence. Projects may arise from real-world problems, research questions, professional needs, community priorities, or creative and entrepreneurial opportunities.

RLPBL is not simply a teaching method. It is a learner-centred educational model intended to help students navigate complexity, uncertainty, and change in an increasingly AI-mediated world.

Understanding the Three Layers of the RLPBL Framework



The RLPBL Framework consists of three interconnected layers.

Layer 1: The Learner-Centred Core

What capabilities do we want students to develop?

At the heart of the framework is the Learner-Centred Core: Sense → Frame → Investigate → Create → Refine.

These are interconnected capabilities through which learners engage with authentic contexts and complexity. They are not fixed project stages or a linear procedure. Learners may revisit them throughout a project as their understanding, circumstances, and ideas evolve.

Capability	What learners do
Sense	Notice needs, opportunities, questions, challenges, and emerging issues.
Frame	Define meaningful inquiry questions, project purposes, directions, or problems.
Investigate	Explore, analyse, test, question assumptions, and gather insights.
Create	Develop ideas, interpretations, products, interventions, responses, or solutions.
Refine	Improve through feedback, reflection, testing, and iteration.

Together, these capabilities support students in becoming curious observers, thoughtful framers of inquiry, capable investigators, creative contributors, and adaptive lifelong learners.

Layer 2: The Five Pedagogical Dimensions

How do we design learning to cultivate these capabilities?

The five-point star represents interconnected pedagogical design principles that create conditions for the learner-centred core to develop. The dimensions address complementary aspects of learning design rather than five sequential stages.

Dimension	Focus
Real-World Grounding and Project Framing	How projects connect to authentic contexts and how students participate in identifying and shaping project directions.
Inquiry and Project Development	How students explore, investigate, make decisions, create, and iteratively refine meaningful project outcomes and capabilities.
Scaffolding and Learning Design	How facilitation, milestones, resources, reflection, and adaptive support sustain meaningful learning throughout the project.
Assessment and Feedback for Learning	How assessment and feedback support inquiry, reflection, improvement, and capability

	development alongside project outcomes.
Collaboration, Human-AI Co-Intelligence, and Resource Integration	How students collaboratively mobilise people, stakeholder expertise, AI and other technologies, and contextual resources.

Layer 3: The Learning Ecosystem

What world are students preparing to engage with?

RLPBL takes place within a wider environment shaped by:

Society: Human needs, social challenges, sustainability, and public impact.

Knowledge Networks: Research, disciplinary expertise, interdisciplinary knowledge, and emerging ideas.

Industry & Community: Professional practice, entrepreneurship, stakeholders, and community engagement.

AI Ecosystems: Artificial intelligence, digital technologies, and intelligent tools.

Transnational Contexts: Global perspectives, intercultural communication, and international collaboration.

These ecosystems influence the questions and opportunities students encounter, the project contexts in which they work, the resources they draw upon, and the capabilities they need to develop.

The RLPBL Self-Assessment Rubric

While the framework articulates the vision of RLPBL, educators also need a practical way to reflect on teaching and curriculum design. The RLPBL Self-Assessment Rubric translates the five pedagogical dimensions into descriptors along a developmental continuum. It is intended to support reflection, professional dialogue, module and programme design, and continuous enhancement—not to rank teaching performance.

The rubric can help educators:

- Reflect on current learning and teaching practice.
- Identify existing strengths and areas for enhancement.
- Support module and programme redesign.
- Facilitate peer observation and developmental dialogue.
- Share effective practices across disciplinary contexts.

Not every module needs to achieve Level 5 in every dimension. Different disciplines, project types, learning outcomes, and student cohorts may require different design decisions. A module may also reflect different levels across different dimensions.

The Five Dimensions

- 1. Real-World Grounding and Project Framing
- 2. Inquiry and Project Development

- 3. Scaffolding and Learning Design
- 4. Assessment and Feedback for Learning
- 5. Collaboration, Human-AI Co-Intelligence, and Resource Integration

Understanding the Developmental Levels

Level	General orientation
Level 1	Predominantly predefined tasks, limited inquiry or integration.
Level 2	Structured contextualisation, exploration, and basic support.
Level 3	Guided authentic inquiry, collaborative development, and meaningful feedback.
Level 4	Greater student agency, adaptive inquiry, integrated support, and iterative project development.
Level 5	Sophisticated, context-responsive project engagement, innovation, and wider ecosystem participation.

These descriptions are broad orientations, not substitutes for the dimension-specific descriptors in the rubric. The levels should be used to inform discussion about learning design rather than to generate a single score.

How to Use the Rubric

Step 1: Review Your Module

Consider the project context, learning activities, assessment design, resources, and student experience. Ask:

- What questions, needs, challenges, problems, or opportunities give purpose to the project?
- How do students investigate, develop, test, and refine project ideas and outcomes?
- What support structures enable students to engage in meaningful inquiry?
- How do assessment and feedback support learning throughout the project?
- How are collaboration, human expertise, AI tools, and contextual resources integrated?

Step 2: Map Your Practice

- Read the descriptors for each dimension.
- Identify the descriptor that best reflects current practice, recognising that practice may span adjacent levels.
- Record concrete evidence from project briefs, learning activities, assessment, student work, and feedback.

Avoid focusing on scores. Focus instead on how the learning environment currently operates and what students have opportunities to experience and develop.

Step 3: Identify Strengths

- Which dimensions are already strongly represented?
- What aspects of the learning design are working well?
- What capabilities are students developing through the project experience?

Step 4: Identify Opportunities for Development

- Which dimensions could be strengthened in ways that serve the module's aims?
- Where could students have greater ownership of inquiry, project direction, or refinement?
- What manageable changes could be introduced and evaluated?

Small, intentional adjustments can support meaningful improvement. The purpose is not to move every dimension towards Level 5, but to make informed, context-sensitive choices.

Using the Framework in Practice

If you are new to RLPBL, start small. Depending on your context, consider introducing:

- An authentic project grounded in a question, need, challenge, problem, or opportunity.
- Opportunities for students to help frame project purposes and inquiry directions.
- Exploration, investigation, creation, and refinement within the project.
- Feedback and iteration cycles that support improvement.
- Assessment that recognises both learning processes and project outcomes.
- Purposeful collaboration and critical, appropriate use of AI and other resources.
- Engagement with relevant communities, professions, or audiences where appropriate.

From Reflection to Enhancement

The framework offers a shared language for discussing RLPBL across disciplines, while the rubric helps educators recognise existing strengths, identify opportunities for enhancement, and reflect on how their modules may evolve over time.

Implementation is developmental and context-specific. Different disciplines, programmes, and modules will legitimately adopt different approaches to RLPBL depending on educational aims, professional contexts, student readiness, and intended learning outcomes. Educators are encouraged to make intentional design decisions rather than strive for a particular level across all dimensions.

Using the Rubric in Developmental Peer Observation

The rubric can also support teaching peer observation by providing shared prompts for observation, reflection, and collegial dialogue. Observers and participating educators may select relevant dimensions, discuss examples of student learning and teaching design, and identify possible next steps together.

Its purpose in this context is developmental: it should not be used as a performance ranking, a checklist of mandatory practices, or an expectation that every observed session visibly demonstrates all five dimensions. Some features of project-based learning are best understood through module materials, student work, or follow-up discussion rather than a single observation.

Suggestions for Academic Leaders

The framework and rubric are intended to support constructive conversations about learning and teaching across Schools and Academies. Associate Deans for Learning and Teaching (ADLTs), Programme Directors, and Module Leaders may use them to:

- Facilitate curriculum review and enhancement discussions.
- Support programme and module redesign aligned with RLPBL principles.
- Identify strengths, opportunities for enhancement, and relevant development needs.
- Encourage sharing of existing RLPBL practices and disciplinary innovations.
- Inform strategic conversations about educational innovation and student capability development.

Different disciplines may legitimately demonstrate different profiles across the five dimensions. The framework should support this diversity rather than impose a uniform project format.

EDU Support and Professional Development

The Educational Development Unit (EDU), together with the RLPBL Working Group and Advisory Group, supports colleagues through educational development activities and opportunities for collaborative reflection.

RLPBL Community Workshops

University-wide workshops introduce the RLPBL Framework and Self-Assessment Rubric, share disciplinary examples, and create opportunities to discuss implementation questions. These sessions seek to foster a community of practice in which educators learn from one another and collectively refine RLPBL approaches.

Continuing Professional Development (CPD)

A series of CPD sessions supports colleagues at different stages of their RLPBL journey, from small enhancements to existing modules to more extensive curriculum redesign. Topics may include project framing, inquiry and development, authentic assessment, scaffolding, interdisciplinary collaboration, and human-AI co-intelligence.

Curriculum Consultation and Module Mapping

EDU provides individual and programme-level consultations to support module design, curriculum review, and implementation planning. Schools and Academies can use the framework and rubric to map existing modules, recognise strengths, and identify realistic opportunities for enhancement.

Building an Institutional Knowledge Base

The RLPBL Working Group is collecting examples of existing RLPBL practice, disciplinary case studies, and implementation experiences across the University. These examples can help colleagues see how the framework is enacted in different contexts, support peer learning, and inform future refinement of the framework and guidebook.

The RLPBL Framework is an evolving institutional resource. Consistent with its iterative philosophy, the framework, rubric, and guidebook can continue to develop through implementation, collaboration, reflection, and evidence from educational practice.

Questions and Feedback

Please contact the EDU RLPBL Working Group for questions, feedback, or opportunities to share examples of RLPBL practice.

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Dimension 1
Real-World Grounding and Project Framing

This dimension examines the extent to which learning projects are grounded in authentic real-world contexts and whether students participate in identifying, exploring, and framing meaningful project directions. It focuses on the authenticity of the learning situation, the openness of inquiry, and the connection between project work and meaningful real-world impact beyond classroom simulation.

Level	Descriptor
Level 1 — Classroom Simulation	Projects are primarily teacher-designed classroom exercises or hypothetical scenarios. Project goals, tasks, and expected outcomes are predefined, with limited opportunities for students to explore authentic contexts or shape project directions. Learning activities remain largely disconnected from real-world needs or applications.
Level 2 — Applied Contextualization	Projects reference real-world topics or professional contexts, but their scope, direction, and expected outcomes are still largely defined by the teacher. Students mainly apply existing knowledge to structured tasks.
Level 3 — Guided Real-World Inquiry	Students engage with authentic issues, cases, or phenomena connected to real-world contexts. While teachers provide substantial guidance, students begin to explore relevant contexts, consider different perspectives, and participate in refining project questions, goals, or directions. Projects provide opportunities for meaningful inquiry and contextual understanding.
Level 4 — Student-Driven Project Formation	Students actively explore authentic contexts, identify meaningful needs, challenges, opportunities, or research questions, and take substantial ownership of defining their project directions. Projects involve open-ended inquiry, multiple possible pathways, and engagement with uncertainty or complexity.
Level 5 — Authentic Impact and Engagement	Projects are deeply grounded in real-world needs, communities, research contexts, or professional practice. Students frame meaningful project directions through engagement with relevant stakeholders, research evidence, or contextual insights. Project outcomes are developed, tested, implemented, or shared with audiences beyond the classroom, creating opportunities for authentic contribution and potential real-world impact.

Dimension 1 of 5. RLPBL self-assessment rubric V3.

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Dimension 2

Inquiry and Project Development

This dimension examines how students engage in inquiry, explore ideas, address challenges, and develop meaningful outcomes throughout the project process. It focuses on the depth of inquiry and the sophistication of investigation, analysis, creativity, decision-making, and iterative refinement. It considers how students draw on relevant knowledge, evidence, experiences, and feedback to inform project development, respond to emerging needs or challenges, and develop meaningful professional, creative, technical, or transferable capabilities through the process.

Level	Descriptor
Level 1 — Task-Oriented Project Completion	Students complete predefined project tasks primarily through straightforward task completion or application of familiar approaches. Investigation is limited, solutions are often predictable, and there is little evidence of iterative improvement or deeper capability development.
Level 2 — Structured Exploration and Development	Students begin exploring project-related questions, ideas, or challenges through gathering relevant information, feedback, or examples. Project development shows some analysis and adaptation, but the process remains relatively linear and limited in depth or creativity.
Level 3 — Analytical and Iterative Development	Students actively investigate project-related questions, challenges, or opportunities through analysis, testing, experimentation, feedback, or the comparison of alternatives. They draw on relevant knowledge, evidence, and feedback to inform decisions and develop project outcomes through iterative refinement. Students demonstrate growing ability to make informed decisions and apply relevant skills or knowledge.
Level 4 — Adaptive and Integrative Project Development	Students engage in sustained and adaptive inquiry, integrating evidence, creativity, technical or disciplinary knowledge, and contextual understanding. They critically evaluate alternatives, respond to emerging findings or challenges, and refine project directions, approaches, and outcomes through iterative exploration and informed decision-making. The process supports substantial development of transferable capabilities.
Level 5 — Innovative and Impact-Oriented Development	Students demonstrate inquiry and project development characterized by critical evaluation, innovation, informed judgement, experimentation, iterative refinement, and context-sensitive decision-making. They navigate complexity and uncertainty, integrate diverse perspectives and resources, and develop original, feasible, and context-responsive project outcomes. The project process fosters advanced transferable capabilities and generates meaningful contributions, insights, or innovations with potential value beyond the immediate learning context.

Dimension 2 of 5. RLPBL self-assessment rubric V3.

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Dimension 3

Scaffolding and Learning Design

This dimension examines how learning processes are structured and supported throughout the project journey. It focuses on the extent to which projects are intentionally scaffolded through milestones, facilitation, feedback mechanisms, resources, collaboration structures, reflection opportunities, and adaptive support that help students navigate complex real-world problems and sustain meaningful learning and development.

Level	Descriptor
Level 1 — Minimal Project Structuring	Projects are loosely organized with limited scaffolding or process support. Learning activities rely heavily on students independently managing tasks, often resulting in unclear direction, uneven engagement, or fragmented project development.
Level 2 — Basic Process Guidance	Projects include some planned structure, such as timelines, task instructions, or periodic check-ins. Support mainly focuses on task completion and project management rather than deeper inquiry, iteration, or developmental learning processes.
Level 3 — Structured Learning Support	Projects are intentionally scaffolded through milestones, feedback opportunities, guidance resources, or facilitated activities that support investigation, collaboration, and iterative development. Students receive structured support throughout key stages of the project process.
Level 4 — Adaptive and Integrated Scaffolding	Learning support is integrated throughout the project ecology through feedback loops, peer interaction, reflection, external input, iterative checkpoints, and flexible facilitation strategies. Scaffolding adapts to project complexity and supports students in navigating uncertainty and real-world constraints.
Level 5 — Transformative Learning Ecology	Projects are supported by a sophisticated and responsive learning ecosystem that enables sustained inquiry, collaboration, experimentation, reflection, and capability development. Multiple forms of support—faculty facilitation, peer critique, external mentorship, resources, and iterative feedback—work together to empower students to manage complex, authentic project work with increasing independence and professionalism.

Dimension 3 of 5. RLPBL self-assessment rubric V3.

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Dimension 4

Assessment and Feedback for Learning

This dimension examines how assessment and feedback processes support learning throughout the project journey. It focuses on the extent to which assessment recognizes inquiry, problem-solving, iteration, collaboration, reflection, and capability development, rather than only evaluating final outcomes or task completion. It also considers how feedback processes guide students in refining their work and responding to authentic project challenges.

Level	Descriptor
Level 1 — Outcome-Focused Evaluation	Assessment primarily focuses on evaluating final outcomes or completion of project tasks. Feedback is limited and mainly used to judge performance at the end of the process.
Level 2 — Process-Aware Assessment	Assessment begins to recognize aspects of the learning process, such as participation, progress, or reflection. Feedback may occur during the project, but assessment still focuses largely on predefined outcomes and completion of requirements.
Level 3 — Developmental Assessment and Feedback	Assessment intentionally supports learning and development throughout the project process. Students receive opportunities to refine their work through feedback, reflection, analysis, or revision, and assessment recognizes both process and outcomes.
Level 4 — Integrated and Responsive Assessment	Assessment and feedback are integrated into the ongoing development of the project. Multiple forms of evidence, perspectives, or feedback contribute to students' decision-making, refinement, and problem-solving processes. Assessment supports adaptability, iterative improvement, and meaningful engagement with authentic challenges.
Level 5 — Transformative Assessment Ecology	Assessment functions as an embedded part of the learning ecosystem, continuously supporting inquiry, experimentation, reflection, collaboration, and capability development. Students actively use feedback, evaluation, and contextual evidence to iteratively refine solutions, practices, or products in response to evolving real-world needs and constraints.

Dimension 4 of 5. RLPBL self-assessment rubric V3.

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Dimension 5

Collaboration, Co-Creation, and Resource Integration

This dimension examines the extent to which learning involves meaningful collaboration, collective problem-solving, and the strategic orchestration of human, technological, and contextual resources. It focuses on how students engage with peers, stakeholders, communities, AI tools, technologies, and broader knowledge ecosystems to co-construct understanding, coordinate action, and collaboratively respond to authentic project challenges.

Level	Descriptor
Level 1 — Basic Cooperation and Resource Use	Collaboration is primarily limited to basic coordination or division of tasks. Students mainly rely on familiar resources, technologies, or AI tools for straightforward task completion, with limited integration of diverse expertise, perspectives, or contextual resources.
Level 2 — Coordinated Collaboration and Resource Gathering	Students engage in discussion, information sharing, and basic coordination throughout the project process. They begin identifying and using a wider range of human, technological, or contextual resources to support project work, but resource integration and collaborative knowledge development remain relatively limited.
Level 3 — Collaborative Inquiry and Resource Integration	Students actively collaborate to investigate project-related questions, exchange feedback, and develop shared ideas or approaches. Human expertise, stakeholder input, technologies, AI-supported tools, and contextual resources are meaningfully integrated into the project process to support analysis, decision-making, and project development.
Level 4 — Adaptive Coordination and Human-AI Co-Creation	Collaboration involves sustained co-construction of knowledge, solutions, or products through dialogue, critique, negotiation, and strategic coordination of human and technological resources. Students adaptively integrate stakeholder perspectives, AI-supported tools, and contextual knowledge and constraints to navigate authentic project complexity and emerging challenges.
Level 5 — Transformative Ecosystem Orchestration and Human-AI Co-Intelligence	Collaboration functions as a dynamic and distributed ecosystem involving shared responsibility, interdisciplinary engagement, strategic human-AI collaboration, and adaptive orchestration of diverse human, technological, and contextual resources. Students critically mobilize expertise, intelligent technologies, stakeholder networks, and contextual knowledge to develop innovative, context-responsive project outcomes with potential real-world impact.

Dimension 5 of 5. RLPBL self-assessment rubric V3.