



DIGITAL TRANSFORMATION  
OF ASIAN HIGHER EDUCATION

## D 3.1 Piloting Methodology and Plan

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## OVERVIEW

<b>Title:</b>	Piloting Methodology and Plan
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<b>Abstract:</b>	The Piloting Methodology and Plan (D3.1) directly supports DIGITAsia's mission by enabling partner institutions to implement and evaluate hybrid-learning courses through a unified, scalable process. It establishes governance structures, detailed onboarding for educators and students, UDL-aligned learning-design templates, multi-modal delivery strategies, and robust data-collection and monitoring workflows. By generating consistent, comparable insights across diverse contexts, this plan drives continuous improvement, informs future roll-outs, and fosters inclusive, Industry 4.0-ready educational environments. The document is maintained dynamically, with revisions managed through version control and partner consultation.
<b>Key words:</b>	piloting, hybrid learning, UDL, Moodle, onboarding, data collection

## EXECUTIVE SUMMARY

The Piloting Methodology and Plan (D3.1) is designed to provide a clear, user-friendly framework that guides all DIGITAsia partners through every stage of the hybrid-learning pilot. It outlines both strategic objectives—such as meticulous planning and standardized procedures—and practical workflows for governance, onboarding, learning design, delivery, technical setup, and data collection. Serving as a single point of reference for coordinators, educators, and technical teams, the plan ensures timely execution, uniform implementation, and high-quality outcomes. It is a living document, with updates subject to partner consultation and version control.

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# 1. Introduction

## 1.1 Background of the DIGITAsia Project

DIGITAsia is a transnational initiative designed to strengthen the digital education infrastructure and pedagogical capacity of higher education institutions across Asia. Co-funded by the Erasmus+ Programme of the European Union, the project promotes the adoption of hybrid, inclusive, and flexible learning environments informed by the principles of Universal Design for Learning (UDL) and Education 5.0. These approaches emphasize learner agency, accessibility, ethics, and contextual responsiveness as foundational elements of future-ready education.

## 1.2 Introduction to the Methodology

This Piloting Methodology and Plan (Deliverable D3.1) is the core implementation framework for the DIGITAsia project. It provides a structured, replicable process for the design, deployment, monitoring, and evaluation of hybrid-learning modules across participating institutions. The methodology aims to ensure consistency in quality and data comparability across diverse educational contexts, while allowing for institutional flexibility. It serves as the primary reference document for project coordinators, educators, technical staff, and evaluators involved in the pilot phase.

Unlike general project documentation, this plan is focused exclusively on the pilot process: its governance, workflows, onboarding protocols, teaching models, digital infrastructure, data monitoring systems, and ethical safeguards. It outlines each phase of implementation in operational detail, ensuring alignment with DIGITAsia's goals while enabling evidence-informed decision-making and continuous improvement.

## 1.3 Scope and Objectives

This methodology covers all components required to implement and manage the DIGITAsia hybrid-learning pilot.

Scope:

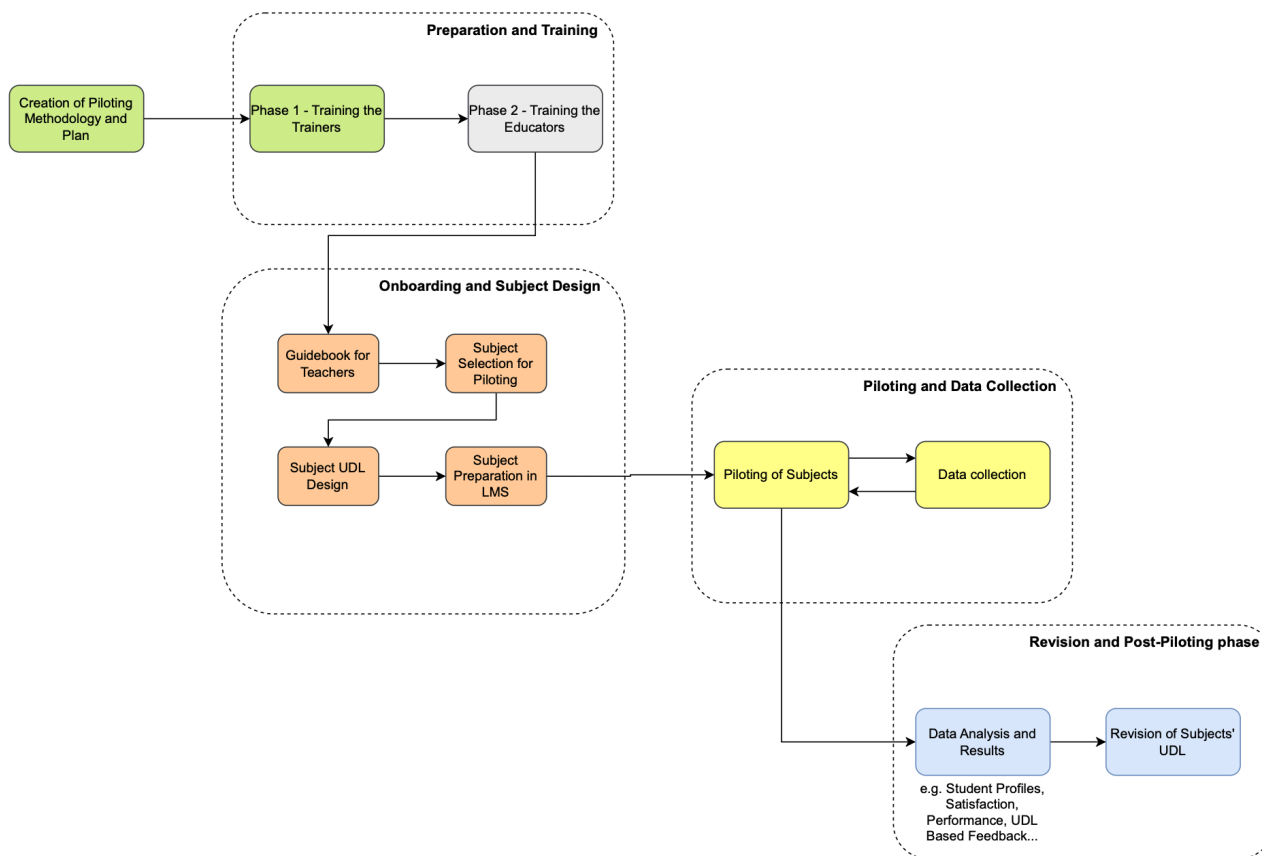
- **Governance and Coordination:** Defining roles, responsibilities, and cross-institutional collaboration structures for managing the pilot lifecycle.
- **Educator and Student Onboarding:** Standardized training and consent procedures to ensure readiness and compliance.
- **Learning Design and Delivery:** Integration of UDL-aligned instructional models and flexible assessment strategies tailored to hybrid contexts.
- **Technical Infrastructure:** Specifications for LMS implementation, plugin compatibility, and access to data analytics tools.
- **Monitoring and Evaluation:** Mixed-methods data collection, dashboard reporting, and continuous feedback loops.
- **Ethical Oversight:** Procedures for informed consent, data protection, equitable participation, and responsible use of AI.

### Objectives:

1. To standardize the implementation of hybrid, UDL-integrated courses across institutions.
2. To collect and analyze meaningful data to evaluate the impact and effectiveness of the pilot.
3. To establish a replicable model for hybrid course design and delivery in diverse higher education environments.
4. To inform the scale-up and refinement of digital pedagogical practices within and beyond the project.

## 2. Plan and Timeline

The piloting process will unfold across several structured phases, each carefully aligned with project deliverables and institutional academic calendars. This section provides a comprehensive overview of all activities, serving as a central reference point for partners and stakeholders.



## 2.1 Creation of Piloting Methodology and Plan:

The piloting work begins with the creation of the piloting methodology and plan (T3.1). During this period, the consortium will collaboratively design the methodological framework, governance structures, and activity sequence that will guide all institutions. This work aligns with Deliverable D3.1, the Piloting Methodology and Plan, which will be finalised in January 2026 following refinement and internal review.

## 2.2 Preparation and Training:

This initial phase focuses on establishing the methodological foundation and building the necessary capacity among the project staff and educators.

- The project officially kicks off within each institution, marking the start of Work Package 3. This activity will bring the project team, including ToTs and educators, together to align on objectives, finalise roles and responsibilities, and agree on initial timelines. The kick-off serves as the foundation for collaborative planning, ensuring that all stakeholders have a shared understanding of the piloting methodology and the expectations for subsequent activities.
- Onboarding of ToT and Educator Teams: Institutions will onboard Trainers of Trainers (ToTs) and educators to the project. ToTs will be nominated within the institutions to lead the training process.
- Phase 1: Training the Trainers: The first training phase focuses on preparing ToTs. ToTs will undergo structured training in hybrid pedagogy, UDL strategies, and the use of Moodle and the BDP platform. All ToTs will complete all four training modules, including the capstone project. This will ensure they are fully equipped to support educators during the next phase of training.
- Phase 2 Training of Educators: All educators will complete structured training modules and the capstone project with the support of the project team and the ToTs within the institutions. This training will build their digital competencies, pedagogical readiness, and ability to integrate UDL principles into their course designs, preparing them for the redesign phase.

## 2.3 Onboarding and Subject Design

In this phase, theoretical training is translated into practical course architecture. Educators move from the "learner" role to the "designer" role, preparing the foundation for the upcoming pilot.

- Guidebook for Teachers: Educators are formally onboarded and provided with the "Piloting Guide for Educators" (D3.2) to steer their specific redesign process.

The institutions will conduct a series of trainings and workshops to build capacity among the educators. These activities will provide hands-on practice with digital tools, hybrid teaching strategies, and UDL methods. All outcomes will be documented in Deliverable D3.4, the Onboarding Workshop Report.

- **Subject Selection for Piloting:** Each partner institution will identify 10–15 courses to include in the pilot. Selection will ensure diversity across disciplines, course formats, and student populations, while prioritising alignment with Education 5.0 and Universal Design for Learning (UDL) principles. These courses will serve as the foundation for redesign, training, and subsequent piloting.
- **Subject UDL Design:** Acting as course designers and innovators, educators and Trainers of Trainers (ToTs) will redesign selected courses according to Universal Design for Learning (UDL) principles to ensure inclusion and accessibility. Leveraging DIGITAsia templates and UDL-specific guidelines, all educators will adapt course content to incorporate flexible delivery methods, inclusive pedagogical strategies, and digital tools designed to bolster student engagement. Upon completion of the redesign, educators will submit their work for formal review. These submissions will be compiled into Deliverable D3.3, the Pre-Piloting Course Design and Implementation Catalogue. This deliverable represents a critical project milestone, marking the successful transition from the course preparation stage to the live piloting phase.
- **LMS Preparation:** All the redesigned courses are updated to the BDP tools and migrated to the institutional LMS with formal approval from the institutional project team. The finalized learning designs are then integrated into the Learning Management System (LMS) to prepare for piloting.

## 2.4 Piloting and Data Collection

This phase involves the active implementation of redesigned courses with the target student population, providing real-world evidence of their effectiveness and adaptability.

- **Piloting of Subjects (May 2026 – March 2027):** Educators act as facilitators, teaching the newly redesigned courses to a target of at least 1000 students. The piloting of redesigned courses (T4.1) will take place between May 2026 and March 2027, according to institutional academic calendars in multiple phases as agreed by the institutions. During this stage, redesigned modules will be delivered in live classroom and online settings, providing real-world evidence of their effectiveness and adaptability.
- **Data Collection:** Throughout the piloting period, institutions will collect student and educator feedback as well as student profile data. This will include surveys, focus group interviews, and LMS analytics, all feeding into Deliverables D4.1

(Student Profile Report) and D4.2 (Piloting Report). A continuous feedback loop is established to gather data throughout the piloting lifecycle:

- o Pre - Pilot: Baseline data is collected from educators via surveys to establish institutional context, expectations, anticipated barriers/supports, and perceived competence in UDL
- o Post - Pilot: Comprehensive evaluations are conducted through surveys and focus group interviews to assess the pilot's overall impact.
  - Students: Participate in surveys to collect profiles and evaluate course impact, overall learning experience, engagement, and pedagogical impact.
  - Educators: Participate in surveys and two focus group interviews to evaluate UDL implementation and their experience with the CQS tool, focusing specifically on indicators related to Education 5.0.

Note: For comprehensive details regarding specific data collection protocols, please refer to Section 6.

## 2.5 Revision and Post-Piloting

The final phase focuses on evaluation and the long-term refinement of the educational materials.

- Data Analysis and Results: Following the completion of the pilot, a comprehensive evaluation is conducted to synthesize the data collected throughout the teaching cycle. This analytical phase is designed to provide empirical insights into the effectiveness of the redesigned courses and the overall impact of the new pedagogical strategies. The analysis focuses on four key dimensions:
  - o Student Profiles: Analysts utilize baseline data from surveys to establish a clear understanding of student demographics, contexts, and initial expectations.
  - o Student Satisfaction and Experience: Post-pilot survey results are evaluated to measure the overall impact of the course redesign on the learner's journey and their satisfaction with the new instructional format.
  - o Student Performance and Engagement: Educators and researchers analyze LMS-generated data—including activity completion rates and engagement metrics—to assess the real-world pedagogical impact of the digital tools and redesigned modules.
  - o UDL-Based Feedback: A specialized analysis of survey data and focus group interviews is conducted to evaluate the depth of Universal Design for Learning (UDL) implementation. This includes assessing the use of the

CQS tool and tracking main indicators specifically related to Education 5.0.

- **Revision of Subjects' UDL:** Building upon the comprehensive data analysis and results, educators will serve as reflective practitioners to revise their learning designs based on insights gained during the pilot phase. These adjustments will focus on strengthening inclusivity, improving student engagement, and addressing specific pedagogical challenges identified through stakeholder feedback and learning analytics.

The finalized course designs will be formally submitted as part of Deliverable D4.3, the Post-Piloting Course Design and Implementation Catalogue. By consolidating improvements from all participating institutions, this deliverable ensures that critical lessons learned during the pilot are systematically captured and documented to support future project scalability and institutional growth.

### 3. Roles & Responsibilities

Successful piloting requires a clear distribution of responsibilities across all levels of the project. Each partner institution will establish a dedicated project team that coordinates the local piloting process, ensuring alignment with consortium-wide objectives and deliverables. Institutions have the flexibility to select courses most relevant to their context and capacity, while ensuring that these choices support the overall aims of DIGITAsia.

The following roles outline the framework for accountability within the piloting phase:

- **Project Coordinator:** The Project Coordinator is the overall project leader, responsible for providing strategic direction and oversight across all work packages. This role ensures that piloting activities remain aligned with the broader objectives of DIGITAsia, while also facilitating communication, reporting, and collaboration among all partner institutions.
- **Work Package Leader (WP4):** Since piloting falls under Work Package 4, the institution leading WP4 carries responsibility for overseeing the successful implementation of piloting across all partner institutions. This includes coordinating milestones, monitoring progress, providing technical and pedagogical guidance, and ensuring deliverables are completed on schedule.
- **Institutional Project Team:** Each institution will form a local project team responsible for managing day-to-day piloting activities. The team oversees educator onboarding, training participation, course redesign, data collection

procedures, and reporting. It also serves as the main point of contact with the consortium, ensuring timely communication and coordination.

- **Training of Trainer (ToT):** ToTs play a central role in building capacity within each institution. They undergo advanced training in hybrid pedagogy, UDL, and the use of digital tools, and then cascade this knowledge to the wider educator team. ToTs also provide peer mentoring, technical guidance, and pedagogical support throughout the piloting process.
- **Educators:** Educators are directly responsible for redesigning and delivering the pilot courses. Their responsibilities include completing training modules, applying UDL and Education 5.0 principles in course design, facilitating hybrid delivery, engaging students, and collecting feedback. Educators also contribute reflective insights that inform both local and consortium-wide improvements.
- **Students:** While students are not assigned formal responsibilities in governance, they play an essential role in providing feedback and participating actively in the redesigned courses. Their engagement and reflections will be critical for evaluating the effectiveness of the pilot and guiding future improvements.

This roles and responsibilities framework emphasizes accountability while allowing flexibility for institutions to adapt to their local contexts. The combined efforts of institutional project teams, ToTs, and educators provide a strong foundation for effective piloting and ensure that responsibilities are clearly distributed to support successful implementation across all partner institutions.

## 4. Training & Workshops

Training and workshops form a core component of the piloting process, ensuring that educators and institutions are well-prepared to design, implement, and evaluate hybrid learning courses. This section provides an overview of the various activities which institutions are expected to host in support of capacity building and course readiness.

The program of activities will include the DIGITAsia training program, which includes the capstone project, where educators showcase redesigned courses for peer and expert feedback, as well as thematic workshops on hybrid pedagogy, Universal Design for Learning (UDL), and the effective use of Moodle and related digital tools. Institutions are also encouraged to organize local training sessions tailored to their own contexts, such as digital literacy workshops, student support training, or sessions focused on discipline-specific applications of hybrid learning.

### 4.1 Key Training Categories

To support readiness and capacity building, institutions shall host training and workshops covering the following areas:

- **Digital Pedagogy** – effective strategies for hybrid and blended learning.
- **Universal Design for Learning (UDL)** – inclusive design principles for accessible learning environments.
- **Course Design and Redesign** – aligning with Education 5.0, course quality, and project learning outcomes.
- **Use of Moodle and Digital Tools** – managing LMS activities, assessments, and student engagement.
- **Use of the BDP Tool** – redesigning courses, managing course data, and contributing to project-wide reporting.
- **Student Engagement Strategies** – methods to promote interaction, collaboration, and motivation.
- **Feedback and Data Collection** – gathering input from students and educators through surveys, analytics, and reflections.

By engaging in these training and workshop activities, educators and trainers of trainers (ToTs) will strengthen their skills, collaborate across institutions, and build a shared foundation for delivering inclusive, effective, and innovative piloting courses.

## 5. Learning Design and Delivery

The piloting of modules under this project, is structured around a coherent learning design that prioritises inclusivity, flexibility, and authentic application. Grounded in Education 5.0 principles and Universal Design for Learning (UDL), the design ensures that participants actively construct knowledge while developing practical outputs they can immediately apply in their teaching contexts.

### 5.1 Sequenced Design

The learning design follows a two-phase structure, progressing from individual (re)design to collaborative refinement:

#### Phase 1: Course (Re)Design with the BDP Tool

Participants draw upon their prior learning from the four preparatory modules—Education 5.0, UDL, Learning Analytics, and Course Quality Enhancement. Guided tasks ensure that the redesign is systematic:

- **Task 1: UDL Integration** – Demonstrate multiple means of representation, engagement, and expression, supported by a short reflective statement.
- **Task 2: Embedding Digital Tools** – Integrate at least two digital tools, with a reflection linking their use to Education 5.0 values.
- **Task 3: Data-Informed Teaching** – Select and justify the use of Moodle analytics tools, showing how data can support adaptation and student success.
- **Task 4: Comprehensive Redesign** – Use the BDP tool and the Course Quality Scorecard to self-assess and refine the full module/subject design.
- **Task 5: Peer Review** – Critically evaluate a peer’s course using the Scorecard, then refine one’s own design in response to feedback.

Outputs include a shareable BDP design link, reflective writings, digital tool integration evidence, and peer-review feedback documentation.

#### Phase 2: Collaborative Workshop and Showcase

In a 2–3 hour session, participants present and critique designs. Presentations highlight the rationale for redesign choices, while peer and expert reviews provide opportunities for refinement. This phase underscores the social and dialogical nature of learning, where feedback and exchange deepen understanding.

#### Learning Focus and Balanced Design Planning (BDP) tool

At the heart of the design is the Balanced Design Planning (BDP) tool, which provides a structured yet flexible framework for redesigning a subject or module. This tool allows educators to align learning outcomes, workload, digital integration, and assessment

strategies into a single coherent plan. By situating the Capstone within this tool, the pilot ensures that learning is both future-ready and evidence-informed.

The design emphasises three interlinked goals:

- Enabling educators to (re)design subjects/modules aligned with Education 5.0 and UDL principles.
- Strengthening their capacity to embed digital tools for engagement, personalisation, and adaptability.
- Developing skills in leveraging analytics and quality frameworks to improve course design and teaching practice.

### Universal Design for Learning (UDL) Integration

Each module must embed UDL guidelines to remove barriers and optimize learning:

- **Multiple Means of Representation:** Provide content in text, audio, video, and infographic formats.
- **Multiple Means of Engagement:** Use interactive polls, scenario-based learning, gamified exercises, and peer collaboration.
- **Multiple Means of Expression:** Offer diverse assessment options—quizzes, reflective journals, presentations, and projects—to cater to learner strengths.

## 5.2 Pedagogical Approach

The DIGITAsia pilot employs a hybrid approach combining:

- Physical classroom sessions
- Outdoor and experiential learning
- Digital learning environments via institutional LMS platforms

This model aims to increase flexibility, foster learner agency, and ensure inclusive access to education.

The design is intentionally learner-centred and iterative. By combining structured tasks with space for reflection and peer interaction, the pilot ensures that learning is both scaffolded and adaptable. Key features include:

- **Authenticity** – Tasks are anchored in participants' own teaching contexts, ensuring immediate applicability.
- **Iteration** – Design, review, and refinement cycles mirror authentic educational design practice.
- **Feedback-rich environments** – Peer and expert reviews are integral, not supplementary, to learning.
- **Integration of digital and data** – Tools and analytics are not add-ons but embedded into the design process.

Delivery is guided by the design itself: asynchronous engagement through the BDP tool, reflections, and digital integrations, complemented by synchronous collaborative workshops. While preparation requires 10–15 hours of independent work, the final showcase provides a space for collective meaning-making.

#### Initial Module Redesign through Capstone Project

As part of training, educators are required to re-design their first selected module through Capstone Project. This is a 10-hour, three-phase assignment requiring educators to:

Theoretical Foundations: Complete readings and self-paced modules on UDL and Education 5.0.

Course Redesign in BDP: Apply structured planning in the BDP tool to reconfigure existing modules.

Collaborative Workshop & Showcase: Present redesigned courses, receive peer and expert feedback, and pilot select elements in live settings.

## 6. Technical Environment for Piloting

The successful implementation of the piloting phase depends on reliable technical infrastructure and accessible digital platforms. Each partner institution is responsible for ensuring that its IT environment is capable of supporting hybrid learning delivery, Moodle integration, and the use of the DIGITAsia BDP platform.

IT Infrastructure Requirements: Institutions should maintain stable internet connectivity, adequate server capacity, and appropriate access to digital devices to ensure smooth delivery of online and blended learning activities. The infrastructure should be scalable to handle varying class sizes and should provide basic support services for both educators and students. Accessibility and inclusivity considerations must be taken into account to ensure equal participation for all learners.

Moodle Version and Required Plugins: Moodle will serve as the central LMS for piloting, and partner institutions are expected to use an up-to-date and stable version of the platform. Core functions such as quizzes, forums, assignments, and feedback tools should be enabled, along with plugins necessary for learning analytics and interactive content. While institutions may customize their Moodle environments, they should ensure compatibility with the project's data collection and reporting requirements.

To ensure stability, compatibility, and effective tracking during piloting, partner institutions should meet the following basic requirements for Moodle, which include but are not limited to the items listed below:

- **Moodle Version:** Moodle 4.0 or higher (recommended for stability, accessibility, and plugin compatibility).
- **Core Plugins (built-in or widely used)**
  - Assignment
  - Quiz
  - Forum
  - Feedback / Questionnaire
  - Virtual Classroom Tool
  - H5P integration (for interactive content)
- **Analytics Plugins**
  - Moodle Learning Analytics API (built-in)
  - Configurable Reports
- **Custom/Project-Specific Plugins:** BDP integration plugin (for transmitting event data, assessments, and usage statistics to the DIGITAsia platform).

These requirements represent the minimum technical setup for Moodle in the DIGITAsia piloting phase. Institutions may add further plugins or customizations as long as they remain compatible and do not compromise stability or data interoperability.

**LMS Implementation Framework:** All pilot courses should follow a standardized LMS template to promote consistency across institutions. This template, as outlined in the Piloting Guide for Educators (Deliverable D3.2), will provide the structure for course organization, ensuring clearly defined modules, accessible resources, and integrated assessment activities. Universal Design for Learning (UDL) principles should guide the setup to guarantee that courses are both inclusive and flexible.

**Access to BDP and Training Platform:** Institutions will be provided with access to the DIGITAsia BDP platform and training resources. These tools will support course redesign, data collection, and reporting. Each institution is responsible for ensuring that educators and technical staff have the necessary accounts, permissions, and basic training to use these platforms effectively.

## 7. Data Collection & Monitoring

The methodological framework for the DIGITAsia UDL pilot has been developed to ensure a rigorous, transparent, and replicable approach to understanding both teacher

and student experiences with Universal Design for Learning (UDL). The goal is twofold: first, to generate valid and comparable evidence on how teachers implement UDL and how students experience learning in UDL-informed environments; and second, to create a monitoring and reporting model that can be scaled to future implementations beyond the pilot. The methodology follows a mixed-methods design, combining structured quantitative surveys with qualitative insights from teacher focus groups, providing both breadth and depth in understanding UDL adoption and its effects.

## 7.1. Data Lifecycle

The pilot is guided by a clearly defined data lifecycle that ensures that all data—from teachers and students—are traceable, ethically managed, and analytically comparable across participating institutions. This lifecycle supports the project’s commitment to transparency, accountability, and research integrity.



### 7.1.1. Data Collection:

Data are collected from two primary participant groups: teachers and students. Teachers complete UDL-ECT surveys at the beginning and end of the pilot, allowing

measurement of expectations prior to implementation and subsequent assessment of confirmation, perceived usefulness, satisfaction, and continuance intention. Teachers also participate in focus groups, which provide in-depth qualitative insight into their experiences applying UDL in real classroom contexts.

Students complete the Cycle of Learning (CoL) surveys at the end of the pilot—to capture changes in engagement, learning strategies, task orientation, confidence, and perceived challenges. Student data offer a complementary perspective on how UDL-informed teaching influences their learning experience.

#### 7.1.2. Data Processing

All teacher and student data undergo systematic cleaning, anonymisation, and secure storage in institutional repositories. A common governance protocol ensures data comparability across institutions and supports compliance with GDPR and national data-protection requirements.

#### 7.1.3. Data Analysis

Quantitative data from UDL-ECT and CoL instruments are analysed using descriptive statistics, reliability testing, and structural modelling where appropriate. The aim is to evaluate changes across the pilot and identify relationships between teacher attitudes, UDL implementation, and student learning experiences.

Qualitative data from teacher focus groups are analysed using structured thematic coding to identify recurrent patterns related to challenges, successes, barriers, supports, and feasibility of long-term UDL adoption.

#### 7.1.4. Reporting and Dissemination

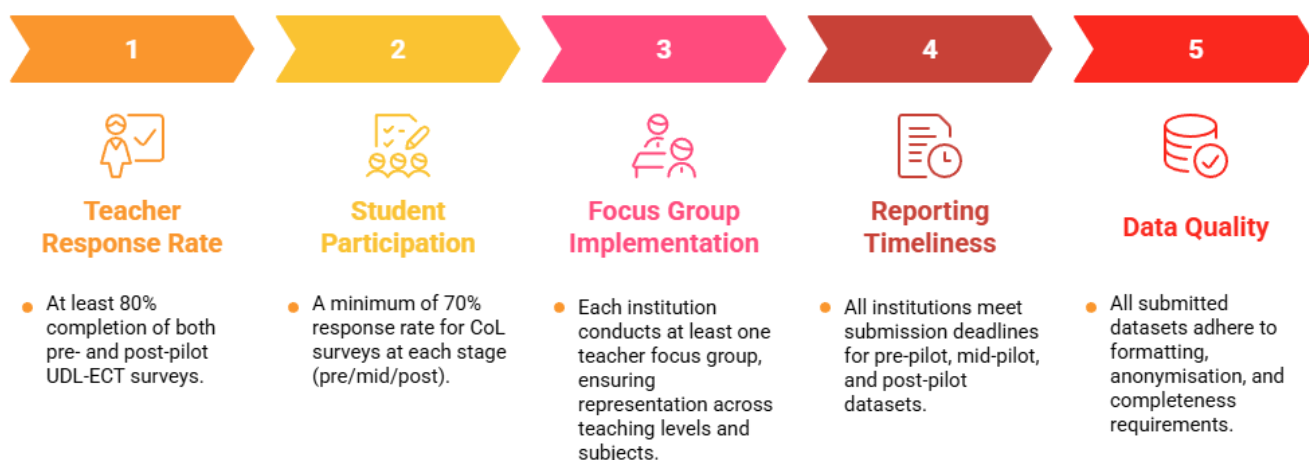
Findings are synthesised into institutional and consortium reports, presenting integrated interpretations of teacher and student data. These outputs support evidence-based refinement of DIGITAsia training materials, institutional policy recommendations, and academic dissemination.

A conceptual data lifecycle diagram (Figure 1) illustrates the sequential links between data collection, processing, analysis, and reporting, emphasising how teacher and student data jointly inform the pilot's outcomes.

### **7.2. Success Criteria**

To ensure robustness and research quality, the methodology is guided by SMART indicators tailored to the UDL-focused pilot:

- **Teacher Response Rate:** At least 80% completion of both pre- and post-pilot UDL-ECT surveys.
- **Student Participation:** A minimum of 70% response rate for CoL surveys at each stage (pre/mid/post).
- **Focus Group Implementation:** Each institution conducts at least one teacher focus group, ensuring representation across teaching levels and subjects.
- **Reporting Timeliness:** All institutions meet submission deadlines for pre-pilot, mid-pilot, and post-pilot datasets
- **Data Quality:** All submitted datasets adhere to formatting, anonymisation, and completeness requirements.



Meeting these criteria ensures a coherent and credible cross-institution dataset capable of supporting sound analysis.


### 7.3. Data Collection Plan



The pilot relies on a structured, sequential data collection plan that captures teacher and student perspectives at key moments in the implementation process.

- **Teachers: Pre-Pilot (Week 0–1):** Teachers complete the baseline UDL-ECT survey, which gathers demographic information, teaching experience, and contextual characteristics such as class size, resource availability, and institutional support. Crucially, this survey captures teachers' expectations regarding UDL—expected usefulness, practicality, accessibility, and impact on students.
- **Teachers: Implementation Period:** Teachers may provide optional brief reflections or implementation notes, though this is not required for all institutions.
- **Teachers: Post-Pilot (Week 14–15):** Teachers complete the UDL-ECT Post-Survey, capturing confirmation of expectations, perceived usefulness, satisfaction, and continuance intention. Additional questions explore perceived

competence, experienced barriers, and feasibility of integrating UDL in future teaching.

- Students: Post-Pilot (Week 14–15): Students complete the CoL Post-Survey, covering profiles, perceived challenges, engagement, Self-regulation, learning strategies, clarity, confidence, and overall satisfaction with their learning experience.
- Teacher Focus Groups: After surveys are completed, two focus groups are conducted at each institution to deepen understanding of teachers' real experiences with UDL implementation and the CQS tool. These discussions contextualise the survey findings and provide nuanced insights into what supports or hinders UDL adoption.

When	Group	Goal	Measure	Instrument
Week 0 – 1 [Pre-Pilot]	<b>Educators</b> 	To establish teacher context & expectations	<ul style="list-style-type: none"> <li>▪ Demographics</li> <li>▪ Professional background</li> <li>▪ Perceived UDL, LA &amp; AI competence</li> <li>▪ Anticipated barriers</li> <li>▪ Expectations</li> </ul>	<b>Pre – UDL ECT survey</b>

When	Group	Goal	Measure	Instrument
Week 14 - 15 [Post-Pilot]	<b>Students</b> 	To evaluate the overall experience, engagement & course impact	<ul style="list-style-type: none"> <li>▪ Demographics</li> <li>▪ Perception of pedagogical design</li> <li>▪ Learning outcomes (self-assessment)</li> <li>▪ Learning engagement</li> <li>▪ Social &amp; cognitive presence</li> <li>▪ Overall satisfaction &amp; recommendations</li> </ul>	<b>Post - Cycle of Learning (CoL) survey</b>
	<b>Educators</b> 	To evaluate the UDL implementation experience	<ul style="list-style-type: none"> <li>▪ Perceived Usefulness</li> <li>▪ Satisfaction with UDL implementation</li> <li>▪ Barriers &amp; Supports</li> <li>▪ Change in perceived UDL competence</li> <li>▪ Reflection on feasibility in real classroom conditions</li> </ul>	<b>Post – UDL ECT survey</b>

<p><b>After the pilot</b></p>	<p>To deepen understanding of teachers' experiences and challenges with UDL</p>	<ul style="list-style-type: none"> <li>▪ Experiences Implementing UDL</li> <li>▪ Changes in Teaching Practice</li> <li>▪ Use of Learning Analytics (LA) and AI</li> <li>▪ Barriers, Supports, and Sustainability</li> <li>▪ CQS Tools</li> </ul>	<p><b>Focus Group Interview 1 and 2</b></p>
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#### 7.4. Data Points and Metrics

In line with the project's focus on pedagogical transformation rather than technological usage, the pilot captures:

##### Teacher Metrics

- UDL-ECT constructs: expectations, confirmation, usefulness, satisfaction, continuance
- Teacher demographics and classroom context
- Perceived competence in UDL
- Reported barriers and supports
- Rich qualitative data from focus groups

##### Student Metrics

- CoL constructs: engagement, strategies, task orientation, confidence, perceived challenges
- Cross-institution comparisons based on course context or student characteristics

These data collectively enable a comprehensive evaluation of UDL's impact on teaching practice and learning experience.

#### 7.5. Reporting Framework

Each institution submits:

- A **Pre-Pilot Baseline data** containing the list of all modules/subjects in the pilot, their BDP links, and other data specified in the Pre-piloting worksheet; as well as the results from the initial surveys
- A **Post-Pilot Integrated data combining teacher and student surveys**, enriched by qualitative findings from teacher focus groups

The consortium-level report synthesises all institutional findings into an aggregated analysis and recommendations for scaling UDL adoption.

### 7.6. Data Governance and Submission

All data are stored in secure institutional repositories with restricted access and full GDPR compliance. Prior to submission, datasets undergo anonymisation and quality checks. Institutions submit datasets at designated timepoints: pre-pilot, mid-pilot (students only), and post-pilot (teachers and students). Bi-weekly check-ins and random audits help maintain data quality and procedural consistency.

### 7.7 Reporting and Evaluation

The reporting process transforms data into actionable insights at multiple levels of governance.

- **Interim Reports (Mid-Pilot):** Each institution will produce a health-check report within two weeks of Week Eight. This will combine mid-pilot survey results, engagement analytics, and key issues identified in institutional logs. These reports will enable the Steering Committee to coordinate early interventions.
- **Institutional Final Reports:** At the conclusion of the pilot, each institution will submit a detailed report structured according to the template provided in Appendix 6. Reports will include descriptions of hybrid teaching models, integration of UDL, educator reflections, student outcomes, and identified challenges.
- **Consolidated Project Report:** The coordination team will synthesise findings into a final Erasmus project report, due April 2027, which will provide comparative analysis across sites, highlight best practices, and make recommendations for scale-up.

## 8. Ethical Considerations

The DIGITAsia pilot prioritizes ethical integrity in all aspects of planning, implementation, data collection, and analysis. Given the transnational, multi-institutional nature of the project, ethical guidelines must align with both international standards - including the General Data Protection Regulation (GDPR) and Erasmus+ programme principles - and relevant local institutional frameworks in participating countries.

The following considerations govern the ethical conduct of the pilot:

**Informed and Voluntary Consent:** All participants must provide informed and voluntary consent prior to any data collection or participation in pilot activities. Access to pilot course materials is restricted until digital consent is recorded. Consent records are time-stamped and securely stored in institutional repositories for audit purposes. A standardized digital consent template (Annex 3) is used across all partner institutions, embedded within the Moodle platform. Participants are given clear and accessible information on:

- The nature and purpose of data collection (e.g., surveys, analytics, assessment artefacts);
- How data will be stored, anonymised, analysed, and shared;
- Their rights, including the right to withdraw at any time without penalty.

**Right to Withdraw:** Participants may withdraw from the pilot at any time without academic or personal consequences. Withdrawal procedures are clearly communicated in a method appropriate to the individual institutions. A streamlined withdrawal request process must be made available through institutional support channels. Upon withdrawal, all related data is excluded from analysis, where feasible.

**Anonymization of Data:** To ensure participant privacy, all personally identifiable information (PII) must be anonymized before submission or use beyond the originating institution. Each institution is responsible for applying standard anonymization protocols, including the use of scripts or tools to de-identify datasets. Original, identifiable data is retained only within secure institutional environments, in line with national data retention regulations. Only anonymized datasets are submitted to the DIGITAsia central repository or included in cross-institutional reports.

**Data Protection and Legal Compliance:** All data handling activities must comply with both international and national legal frameworks. The General Data Protection Regulation (GDPR), where applicable. Local data protection laws and institutional policies. Best practices in data security, including encryption, role-based access controls, and audit logging. Each institution designates a technical lead responsible for maintaining data integrity and secure data transmission throughout the pilot period.

**Ethics Approval and Oversight:** Each participating institution is strongly encouraged to obtain formal ethics clearance from their respective Institutional Review Boards (IRBs) or Research Ethics Committees prior to the pilot launch. Ethical approval should cover:

- Educational interventions and hybrid course design.
- Survey instruments, interviews, and learning analytics.
- Use of AI-enabled tools or automated feedback systems.

Documentation of ethical approval must be maintained by the Institutional Lead and made available to the DIGITAsia Steering Committee upon request.

**Responsible Use of AI and Learning Analytics:** The DIGITAsia pilot employs AI-enabled dashboards and learning analytics to enhance instructional feedback and learner support. Ethical use of these systems is guided by the following principles:

- Transparency: educators can view and understand the basis of algorithmic recommendations.
- Human Oversight: AI-generated suggestions are non-binding and always subject to educator discretion.
- Accountability: Teachers are encouraged to override or adapt AI-driven interventions when pedagogical judgment deems it appropriate.

**Equity and Inclusion:** Ethical equity extends beyond instructional design to all aspects of research conduct. The methodology promotes:

- Inclusive participation by ensuring students with disabilities or limited access to digital resources are supported and represented.
- Accessibility by design, including multiple content formats, language support, assistive technologies, and reasonable accommodations.

**Ethical Reporting and Use of Findings:** All reporting of pilot data must uphold participant confidentiality and institutional dignity. No individuals or institutions will be identified in any publicly disseminated report unless explicit consent is obtained. Data will be used exclusively for purposes outlined in the consent form, including project evaluation, institutional learning, and academic dissemination.

**Monitoring and Accountability:** To ensure consistent adherence:

- Local Working Groups are responsible for maintaining consent trackers and ethical compliance logs
- The Project Coordinator reviews bi-monthly compliance reports and conducts regular audits.
- Any ethical concerns or breaches raised by participants will be addressed promptly through documented escalation protocols.

## 9. Conclusion

The Piloting Methodology and Plan (D3.1) serves as a strategic roadmap for the successful implementation and evaluation of hybrid-learning courses within the DIGITAsia project. By integrating the principles of Education 5.0 and Universal Design

for Learning (UDL), this framework ensures that digital transformation is not merely technological but deeply human-centred, inclusive, and contextually responsive.

The document establishes a structured, four-phase lifecycle—moving from capacity building and innovative course design to live piloting and evidence-based revision. This iterative process empowers educators to transition from "active learners" to "data-informed, reflective practitioners," ensuring that all redesigned courses meet high standards of quality and accessibility. Furthermore, the robust mixed-methods data collection strategy guarantees that all pedagogical improvements are grounded in real-world evidence from both students and teachers.

Ultimately, this plan provides a scalable and replicable model for higher education institutions across Asia. By fostering a culture of continuous improvement and ethical data management, DIGITAsia is positioned to create a sustainable, Industry-ready educational ecosystem that supports lifelong learning and equitable access for all.