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Professional Certificate in Instructional Coaching (Thailand)

## Instructional Design And Planning

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**ADDIE Model** – A systematic framework comprising Analysis, Design, Development, Implementation, and Evaluation.

Related terms: Instructional Systems Development, Process Model, Iterative Design.

Explanation: The ADDIE Model guides instructional designers from identifying learner needs (Analysis) through creating instructional materials (Design & Development) to delivering and assessing the instruction (Implementation & Evaluation). It is cyclical; findings from Evaluation inform revisions in the Analysis phase.

Example: In a Thai language teacher-training program, the analysis revealed a need for interactive pronunciation practice; designers then created audio-rich modules (Development) and piloted them in a classroom (Implementation).

Challenges: Maintaining flexibility while following a linear sequence; ensuring stakeholder involvement at each stage; adapting timelines to real-world constraints.

**Assessment** – The process of gathering evidence to determine learner achievement, skill mastery, or instructional effectiveness.

Related terms: Formative Assessment, Summative Assessment, Diagnostic Assessment, Performance Task.

Explanation: Assessments can be formative (ongoing checks), summative (end-point evaluation), or diagnostic (pre-instruction baseline). Effective assessment aligns with learning objectives and informs instruction.

Example: A teacher uses quick exit tickets (formative) to gauge comprehension of a grammar point before moving to the next lesson.

Challenges: Designing authentic tasks that reflect real-world application; avoiding over-reliance on multiple-choice formats; ensuring cultural relevance in Thai contexts.

**Backward Design** – A planning approach that starts with desired results and works backward to develop instruction.

Related terms: Desired Results, Essential Questions, Learning Targets, Assessment Evidence.

Explanation: In backward design, educators first identify learning outcomes, then determine acceptable evidence of learning, and finally plan learning experiences and instruction. This ensures alignment and purposefulness.

Example: For a unit on sustainable tourism in Thailand, the teacher first sets the outcome “students will propose eco-friendly travel itineraries,” then designs a rubric (assessment evidence), and finally creates research activities (learning experiences).

Challenges: Shifting mindset from activity-first to outcome-first; articulating clear, measurable outcomes; integrating local content without sacrificing rigor.

**Blended Learning** – An instructional strategy that combines face-to-face teaching with online or digital components.

Related terms: Hybrid Learning, Flipped Classroom, Synchronous Learning, Asynchronous Learning.

**Explanation:** Blended learning leverages the strengths of both physical and virtual environments, allowing flexibility, personalized pacing, and richer resource access. Effective design requires careful sequencing and technology integration.

**Example:** In a professional development workshop for Thai instructional coaches, participants attend an in-person kickoff, then complete online modules on coaching models, and reconvene for collaborative practice.

**Challenges:** Ensuring equitable access to technology; maintaining student engagement online; coordinating schedules for synchronous sessions.

**Bloom's Taxonomy** – A hierarchical classification of cognitive skills ranging from remembering to creating. Related terms: Cognitive Domains, Revised Bloom's Taxonomy, Learning Objectives, Higher-Order Thinking. **Explanation:** Bloom's taxonomy provides a framework for developing learning objectives that progress from basic recall to analysis, synthesis, and evaluation, encouraging deeper learning. The revised version adds "Remember," "Understand," "Apply," "Analyze," "Evaluate," and "Create."

**Example:** A lesson on Thai cultural festivals may start with recalling festival dates (Remember), then interpreting symbolic meanings (Understand), and finally designing a community event (Create).

**Challenges:** Avoiding surface-level activities that only address lower levels; aligning assessments with higher-order objectives; providing scaffolding for learners new to complex tasks.

**Constructivism** – A learning theory positing that learners actively construct knowledge through experiences and reflection.

**Related terms:** Social Constructivism, Active Learning, Prior Knowledge, Cognitive Apprenticeship.

**Explanation:** Constructivist design emphasizes authentic problems, collaboration, and reflection, allowing learners to build meaning rather than receive information passively. Teachers act as facilitators, guiding inquiry and supporting sense-making.

**Example:** Instructional coaches facilitate a group project where teachers redesign a lesson plan based on classroom observations, encouraging peer feedback and iterative improvement.

**Challenges:** Balancing guidance with learner autonomy; ensuring misconceptions are identified and corrected; providing sufficient structure for novice learners.

**Differentiated Instruction** – Tailoring teaching methods, materials, and assessments to meet diverse learner needs.

**Related terms:** Learner Profiles, Adaptive Learning, Flexible Grouping, Universal Design for Learning.

**Explanation:** Differentiation involves varying content, process, product, or learning environment based on readiness, interest, and learning profile. It promotes equity by addressing individual strengths and challenges.

**Example:** In a Thai English as a Second Language class, the teacher provides simplified texts for beginners, enriched articles for advanced learners, and offers choice boards for project topics.

**Challenges:** Managing classroom logistics; avoiding stigmatization of lower-ability groups; requiring extensive planning and resource development.

**E-learning** – Delivery of educational content via electronic technologies, typically over the internet.

**Related terms:** Online Learning, Learning Management System (LMS), Digital Pedagogy, MOOCs.

Explanation: E-learning encompasses a range of formats, from self-paced modules to live webinars. Effective e-learning design incorporates interactivity, multimedia, and clear navigation to support learner autonomy.

Example: A series of micro-videos on classroom management is hosted on an LMS for Thai instructional coaches to access anytime.

Challenges: Ensuring learner motivation without face-to-face interaction; addressing bandwidth limitations in remote areas; providing timely technical support.

Formative Assessment – Ongoing checks for understanding that inform immediate instructional adjustments.

Related terms: Feedback, Exit Ticket, Peer Assessment, Learning Analytics.

Explanation: Formative assessments are low-stakes, frequent, and focused on diagnosing misconceptions. They provide actionable data for teachers to modify strategies and for learners to self-regulate.

Example: After a lesson on Thai grammar, the teacher uses a quick Kahoot! quiz; results indicate confusion about verb tenses, prompting a brief reteach.

Challenges: Collecting and interpreting data quickly; avoiding assessment overload; ensuring feedback is specific and constructive.

Learning Objectives – Clear statements describing what learners will know, do, or feel after instruction.

Related terms: SMART Goals, Bloom’s Taxonomy, Performance Indicators, Instructional Alignment.

Explanation: Objectives should be specific, measurable, achievable, relevant, and time-bound (SMART). They guide content selection, activity design, and assessment creation.

Example: “By the end of the session, participants will be able to design a coaching conversation using the GROW model.”

Challenges: Writing objectives that are neither too vague nor overly narrow; aligning multiple objectives across a course; revising objectives based on learner feedback.

Learning Outcomes – The demonstrable skills, knowledge, or attitudes that result from a learning experience.

Related terms: Competency, Mastery, Assessment Criteria, Outcome-Based Education.

Explanation: Outcomes focus on what learners can actually do, often expressed in observable verbs. They serve as the basis for curriculum mapping and accreditation standards.

Example: Outcome: “Learners will analyze classroom video clips to identify effective questioning techniques.”

Challenges: Translating broad program goals into specific outcomes; ensuring outcomes reflect cultural context; measuring outcomes reliably.

Microlearning – Short, focused learning units that address a single objective or skill.

Related terms: Bite-Size Learning, Chunking, Mobile Learning, Just-In-Time Training.

Explanation: Microlearning leverages short attention spans and provides quick, applicable knowledge, often delivered via mobile devices. It supports spaced repetition and reinforcement.

Example: A 5-minute video on giving constructive feedback is sent to coaches before their next observation cycle.

Challenges: Maintaining depth of learning in brief formats; integrating micro-units into larger curricula;

avoiding fragmentation of content.

**Multimodal Learning** – The use of multiple sensory channels (visual, auditory, kinesthetic, etc.) to enhance comprehension and retention.

Related terms: Dual Coding, Media Richness, Sensory Integration, Learning Styles (debunked).

Explanation: By presenting information through varied modalities, designers cater to diverse preferences and reinforce concepts through multiple pathways.

Example: A lesson on classroom layout includes a diagram (visual), a narrated walkthrough (auditory), and a hands-on activity arranging desks (kinesthetic).

Challenges: Balancing modality use without overwhelming learners; ensuring accessibility for learners with sensory impairments; coordinating production of diverse media.

**Pedagogical Content Knowledge (PCK)** – The blend of subject expertise and teaching methodology that enables effective instruction.

Related terms: Teacher Knowledge, Content Knowledge, Instructional Strategies, Reflective Practice.

Explanation: PCK involves understanding how concepts can be misinterpreted, what representations aid learning, and which instructional moves address common difficulties.

Example: A coach helps a teacher explain the concept of “ratio” by using real-world Thai market examples, anticipating student misconceptions.

Challenges: Developing deep content knowledge alongside pedagogical skill; updating PCK with curriculum changes; supporting teachers in making the connection explicit.

**Performance Gap** – The difference between current learner performance and the desired level of mastery.

Related terms: Needs Analysis, Benchmarking, Learning Gap, Targeted Intervention.

Explanation: Identifying performance gaps informs the design of remedial or enrichment activities. It is derived from assessment data, observations, or self-reports.

Example: Assessment data shows that only 40% of teachers can effectively use formative feedback; the gap prompts a focused coaching workshop.

Challenges: Accurately diagnosing the root causes of gaps; avoiding deficit labeling; allocating resources for remediation.

**Rubric** – A scoring guide that delineates criteria and levels of performance for an assignment or task.

Related terms: Scoring Guide, Assessment Matrix, Criterion-Referenced, Holistic Rubric.

Explanation: Rubrics provide transparency, consistent grading, and actionable feedback. They can be analytic (multiple criteria) or holistic (single overall judgment).

Example: A rubric for a lesson-plan presentation includes criteria such as Alignment with Objectives, Use of Evidence, and Delivery Style, each rated on a 4-point scale.

Challenges: Crafting criteria that are clear and measurable; training raters to apply rubrics reliably; preventing over-complexity that discourages use.

**Scaffolding** – Temporary support structures that enable learners to accomplish tasks beyond their current abilities.

Related terms: Zone of Proximal Development, Guided Practice, Fade-Out, Supportive Prompt.

Explanation: Scaffolds may include modeling, cues, graphic organizers, or collaborative partnerships. Over

time, supports are withdrawn as competence grows.

Example: An instructional coach provides a checklist for observation notes during a novice teacher's first classroom walk-through, then gradually reduces prompts.

Challenges: Determining the right amount and timing of support; avoiding learner dependency; ensuring scaffolds are culturally appropriate.

Summative Assessment – Evaluation administered at the end of an instructional period to determine overall achievement.

Related terms: End-Point Evaluation, Final Exam, Portfolio Assessment, Certification.

Explanation: Summative assessments measure whether learning goals have been met and often influence grades, credentials, or program effectiveness judgments.

Example: At the conclusion of the Instructional Coaching Certificate, participants submit a reflective portfolio demonstrating mastery of coaching competencies.

Challenges: Designing assessments that capture complex skills; aligning summative measures with instructional objectives; managing high-stakes pressure on learners.

Universal Design for Learning (UDL) – A framework that guides the creation of flexible learning environments accommodating diverse learners.

Related terms: Accessibility, Multiple Means of Representation, Multiple Means of Action, Multiple Means of Engagement.

Explanation: UDL advocates providing options for perception, expression, and motivation, thereby reducing barriers and promoting inclusivity.

Example: Course materials are offered as text, audio, and video; assessments allow choice between written reports, presentations, or digital artifacts.

Challenges: Anticipating varied learner needs; producing multiple formats within budget constraints; training faculty in UDL principles.

Virtual Learning Environment (VLE) – An online platform that hosts instructional content, communication tools, and assessment mechanisms.

Related terms: Learning Management System, Online Classroom, Digital Workspace, Synchronous Tools.

Explanation: VLEs facilitate blended or fully online courses, offering forums, quizzes, gradebooks, and multimedia integration. Effective VLE use requires clear navigation and support.

Example: The coaching program utilizes a VLE where participants access modules, submit reflections, and engage in discussion boards with peers across Thailand.

Challenges: Ensuring user-friendly design; providing technical support; maintaining engagement in a virtual space.

Zone of Proximal Development (ZPD) – Vygotsky's concept describing the gap between what a learner can do independently and what they can achieve with guidance.

Related terms: Scaffolding, Social Constructivism, Collaborative Learning, Assisted Performance.

Explanation: Instruction within the ZPD maximizes learning by providing tasks that are challenging yet attainable with support, fostering cognitive development.

Example: A coach models a coaching conversation, then lets the teacher practice with prompts, gradually

reducing assistance as competence grows.

Challenges: Accurately assessing each learner's ZPD; providing individualized support in group settings; avoiding over-scaffolding that limits autonomy.

**Action Research** – A systematic, reflective inquiry conducted by practitioners to improve their own practice.

Related terms: Practitioner Inquiry, Cycle of Change, Data-Driven Decision Making, Reflective Practice.

Explanation: Action research involves identifying a problem, planning an intervention, collecting data, analyzing results, and revising practice. It empowers teachers to become evidence-based practitioners.

Example: An instructional coach implements a peer-observation protocol, gathers feedback, and refines the process based on observed outcomes.

Challenges: Allocating time for rigorous data collection; ensuring methodological rigor; translating findings into sustainable practice.

**Blended Assessment** – Combining traditional paper-based assessments with digital tools to capture a fuller picture of learner performance.

Related terms: Hybrid Evaluation, Multi-Modal Assessment, E-Portfolio, Learning Analytics.

Explanation: Blended assessment leverages strengths of both formats—e.g., the immediacy of online quizzes with the depth of reflective essays—to enhance validity and reliability.

Example: Participants complete an online self-assessment, then submit a video demonstration of a coaching session for instructor review.

Challenges: Integrating data from disparate sources; maintaining consistency in scoring; addressing digital equity concerns.

**Cognitive Load Theory** – A theory describing how working memory limitations affect learning, emphasizing the need to manage intrinsic, extraneous, and germane load.

Related terms: Working Memory, Schema Development, Instructional Design, Split-Attention Effect.

Explanation: Effective design reduces unnecessary processing (extraneous load) and optimizes essential processing (germane load) to facilitate schema construction.

Example: A lesson on lesson-plan alignment presents a single template rather than multiple formats, minimizing split-attention.

Challenges: Diagnosing overload in complex tasks; balancing depth of content with cognitive capacity; training designers in load-management strategies.

**Design Thinking** – A human-centered, iterative approach to solving problems, emphasizing empathy, ideation, prototyping, and testing.

Related terms: Empathy Map, Prototype, User-Centered Design, Iterative Cycle.

Explanation: In instructional design, design thinking encourages understanding learner needs, generating creative solutions, and refining materials based on feedback.

Example: Coaches interview teachers about challenges in classroom management, brainstorm tech-enabled supports, prototype a digital checklist, and pilot it in a school.

Challenges: Allocating time for deep empathy work; managing divergent ideas; ensuring prototypes are pedagogically sound.

**E-evaluation** – The use of electronic tools to collect, analyze, and report assessment data.

Related terms: Digital Assessment, Learning Analytics, Automated Grading, Formative Dashboard.

Explanation: E-evaluation enables real-time feedback, adaptive testing, and data-driven decision making, enhancing efficiency and insight.

Example: An LMS provides a dashboard showing each participant's progress on coaching competencies, highlighting areas needing attention.

Challenges: Ensuring data privacy and security; interpreting analytics accurately; avoiding over-reliance on automated scores.

Flipped Classroom – An instructional model where direct instruction is delivered outside class (often via video), and class time is devoted to active learning.

Related terms: Inverted Learning, Pre-Class Materials, Active Engagement, Peer Instruction.

Explanation: By moving lecture content to pre-class work, classroom time becomes available for problem-solving, discussion, and application, fostering deeper learning.

Example: Coaches watch a video on the GROW model before attending a workshop where they practice coaching simulations.

Challenges: Ensuring pre-class materials are completed; providing support for learners who struggle with self-direction; redesigning class activities to capitalize on freed time.

Instructional Alignment – The systematic coordination of learning objectives, instructional activities, and assessments to ensure coherence.

Related terms: Constructive Alignment, Curriculum Mapping, Vertical Alignment, Horizontal Alignment.

Explanation: Alignment guarantees that what is taught, how it is taught, and how learning is measured are mutually supportive, reducing gaps and redundancies.

Example: A module on feedback aligns the objective "provide specific, actionable feedback," the activity of role-playing feedback conversations, and a rubric-based assessment of feedback quality.

Challenges: Conducting comprehensive alignment reviews; reconciling differing stakeholder priorities; updating alignment as standards evolve.

Learning Management System (LMS) – Software that administers, delivers, and tracks educational courses and training programs.

Related terms: VLE, Course Authoring Tool, Student Portal, SCORM.

Explanation: An LMS hosts content, facilitates communication, records grades, and generates reports, serving as the backbone for online and blended learning.

Example: The coaching certificate uses an LMS to host modules, host discussion forums, and automatically issue certificates upon completion.

Challenges: Selecting an LMS that meets local language and bandwidth needs; training staff on advanced features; maintaining data security.

Metacognition – Awareness and regulation of one's own thinking processes.

Related terms: Self-Regulation, Reflective Practice, Metacognitive Strategy, Learning Journals.

Explanation: Teaching metacognitive skills helps learners plan, monitor, and evaluate their learning, leading to improved performance and transferability.

Example: Coaches guide teachers to set learning goals, monitor progress during observations, and reflect

on outcomes afterward.

Challenges: Explicitly modeling metacognitive strategies; providing time for reflection within busy schedules; assessing metacognitive growth.

Open Educational Resources (OER) – Freely accessible, openly licensed teaching, learning, and research materials.

Related terms: Creative Commons, Open Access, Repurposing, Collaborative Development.

Explanation: OER reduce cost barriers, enable adaptation to local contexts, and promote sharing among educators.

Example: A Thai university adopts an OER textbook on instructional coaching, customizing examples to reflect local school settings.

Challenges: Ensuring quality and relevance; navigating licensing terms; providing technical support for adaptation.

Professional Learning Community (PLC) – A collaborative group of educators who regularly engage in collective inquiry and practice improvement.

Related terms: Communities of Practice, Collaborative Inquiry, Peer Coaching, Shared Accountability.

Explanation: PLCs foster continuous improvement through data analysis, shared resources, and joint problem-solving, aligning with school improvement goals.

Example: A district-wide PLC meets monthly to discuss strategies for integrating formative assessment across subjects.

Challenges: Sustaining commitment over time; balancing individual workload with group activities; measuring impact on student outcomes.

Quality Assurance (QA) – Systematic processes to ensure educational programs meet established standards and deliver intended outcomes.

Related terms: Accreditation, Evaluation, Continuous Improvement, Standards Alignment.

Explanation: QA involves monitoring curriculum design, delivery, assessment, and stakeholder satisfaction, using data to inform enhancements.

Example: The instructional coaching program undergoes annual QA review, incorporating feedback from graduates, employers, and academic reviewers.

Challenges: Aligning QA criteria with diverse stakeholder expectations; avoiding bureaucratic overload; integrating QA findings into practice.

Reflective Practice – The habit of critically examining one's actions and decisions to improve professional performance.

Related terms: Reflective Journal, Critical Incident, Self-Assessment, Continuous Learning.

Explanation: Reflective practice encourages educators to analyze experiences, identify strengths and areas for growth, and plan future improvements.

Example: After each coaching session, a coach writes a brief reflection noting what went well, challenges encountered, and next steps.

Challenges: Allocating time for deep reflection; developing honest self-assessment skills; translating insights into concrete changes.

Scalable Design – Creating instructional solutions that can be efficiently expanded or adapted to larger audiences without loss of quality.

Related terms: Replicability, Modular Design, Cost-Effectiveness, Standardization.

Explanation: Scalable design considers resource constraints, technology infrastructure, and cultural adaptability to ensure broader impact.

Example: A microlearning series on classroom management is packaged for delivery across multiple Thai provinces, with localized language options.

Challenges: Maintaining relevance across diverse contexts; managing increased demand on support services; preserving instructional integrity at scale.

Self-Directed Learning – An approach where learners take primary responsibility for planning, executing, and evaluating their learning activities.

Related terms: Autonomous Learning, Learner Control, Personal Learning Path, Goal Setting.

Explanation: Self-directed learners set objectives, locate resources, and assess progress, fostering lifelong learning skills.

Example: Coaches design their own professional development plans, selecting modules from an OER repository aligned with personal goals.

Challenges: Providing sufficient guidance to prevent isolation; ensuring access to high-quality resources; monitoring progress without micromanaging.

Technology Integration – The purposeful incorporation of digital tools to enhance teaching and learning.

Related terms: EdTech, Digital Pedagogy, TPACK, Blended Learning.

Explanation: Effective integration aligns technology with pedagogical goals, improving engagement, accessibility, and learning outcomes.

Example: Teachers use interactive whiteboards to visualize Thai language structures, enabling real-time manipulation of sentence components.

Challenges: Avoiding technology for its own sake; providing professional development for teachers; addressing infrastructure disparities.

User Experience (UX) Design – The process of creating products that provide meaningful and satisfying experiences to users.

Related terms: Interface Design, Usability, Human-Centered Design, Interaction Design.

Explanation: In instructional materials, UX design ensures that learners can navigate content intuitively, reducing cognitive load and enhancing motivation.

Example: An e-learning module features a clear navigation bar, consistent icons, and responsive design for mobile devices.

Challenges: Conducting user testing with diverse learner groups; balancing aesthetic appeal with accessibility; iterating designs based on feedback.

Virtual Reality (VR) – Immersive technology that simulates realistic environments for experiential learning.

Related terms: Immersive Learning, 3D Simulation, Augmented Reality, Spatial Learning.

Explanation: VR enables learners to practice skills in safe, controlled settings, fostering deep engagement and transfer.

Example: Coaching trainees explore a virtual Thai classroom, observing student behavior and rehearsing intervention strategies.

Challenges: High development costs; equipment accessibility; motion sickness and other health considerations.

Work-Based Learning (WBL) – Learning that occurs in authentic workplace contexts, integrating theory with practice.

Related terms: Apprenticeship, Internship, Practicum, Situated Learning.

Explanation: WBL provides learners with real-world experience, reinforcing classroom concepts and developing professional competencies.

Example: Instructional coaching candidates shadow experienced coaches in schools, applying learned models to actual coaching sessions.

Challenges: Coordinating placement logistics; ensuring alignment with academic objectives; providing adequate supervision and feedback.