CONCEPT

AI in Learning and Development: Personalised Learning and AI Content Design



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Technical depth: Practitioner · **Practical mode:** Lab

Introduction

Learning teams are asked to produce more content, faster, for workforces whose needs differ by role, level and pace. Generative AI can shorten development time and tailor learning to each employee, but used without method it produces generic, inaccurate or non-compliant material. This Core Concept course shows learning practitioners how to apply AI tools inside a disciplined design process, from analysing needs to evaluating impact. Working hands on, participants build an AI-Enabled Learning Design Pack containing a personalised pathway, a module prototype, a prompt library and a quality checklist.

Course Objectives

- Identify where AI adds value across the ADDIE and SAM design cycles and where human judgement must stay in control
- Write structured prompts that generate learning objectives, scripts, scenarios and assessment items aligned to Bloom's Revised Taxonomy
- Design adaptive and personalised learning pathways driven by skills profiles and learner records
- Produce multimedia and accessible content with AI tools in line with Mayer's multimedia principles and WCAG 2.2
- Apply accuracy, intellectual property and responsible AI controls to AI-generated learning material
- Measure the effect of AI-enabled learning using xAPI data and the Kirkpatrick Four Levels

Target Audience

- Instructional and learning experience designers responsible for building programmes and digital modules
- Learning content developers producing e-learning, video and performance support material
- Learning platform administrators who configure LMS and LXP environments
- Trainers and facilitators who adapt materials for different learner groups
- Learning coordinators responsible for programme quality and evaluation data

Course Outline

Day 1: AI in Learning: Landscape and Readiness

- Generative, Predictive and Adaptive AI: Capabilities and Limits in Learning
- AI Use-Case Mapping Across the ADDIE Phases
- Large Language Model Behaviour: Hallucination, Context Windows and Grounding
- L&D AI Readiness Assessment: Skills, Data, Tools and Policy
- ISO 29993 Learning Service Requirements as a Quality Baseline

Day 2: Design Frameworks and Responsible AI Standards

- Successive Approximation Model SAM with AI-Assisted Iteration
- Bloom's Revised Taxonomy for AI-Generated Objectives and Assessment Items
- Universal Design for Learning UDL Guidelines for Personalisation
- ISO/IEC 42001 AI Management System Controls Applied to L&D
- NIST AI Risk Management Framework: Govern, Map, Measure, Manage

Day 3: AI-Assisted Content Design and Personalisation

- Prompt Pattern Library for Learning Design: Role, Context, Task, Format
- Scenario-Based Learning and Branching Script Generation
- AI Video, Voice and Avatar Production Workflow
- Adaptive Learning Pathway Design from Skills Profiles
- AI Tutor and Coaching Assistant Configuration with Retrieval-Augmented Generation

Day 4: Quality, Risk and Measurement

- Accuracy Review Protocol and Subject-Matter Expert Sign-Off
- Bias, Copyright and Learner Data Privacy Risk Register
- WCAG 2.2 Accessibility Checks for AI-Generated Content
- Mayer's Multimedia Principles Applied to Editing AI Output
- xAPI IEEE 9274.1.1 Learning Record Analytics Mapped to Kirkpatrick Levels

Day 5: Lab Build: The AI-Enabled Learning Design Pack

- Learning Needs Brief and Learner Persona Build for a Selected Programme
- AI-Assisted Microlearning Module Prototype Build
- Personalised Pathway Configuration in a Learning Platform Sandbox
- Prompt Library and AI Use Quality Checklist Compilation
- Design Pack Demonstration and Peer Critique

Skills You Will Gain

- Prompt Engineering for Learning
- AI-Assisted Instructional Design
- Adaptive Learning Design
- Learning Content Quality Assurance
- Responsible AI Practice
- Accessible Content Design
- Learning Analytics
- Scenario Writing

Why Attend This Course

- Return with an AI-Enabled Learning Design Pack built and demonstrated during the course
- Cut development time on routine content while keeping design decisions and accuracy checks in human hands
- Recognise when an AI tool is unsuitable for a learning task and choose a safer alternative
- Compare tools and workflows with learning practitioners from other sectors and countries

Conclusion

AI changes how learning is produced, but not the need for sound design, accurate content and evidence of impact. This course starts with what AI can and cannot do for learning teams, moves through design frameworks and responsible AI standards, and then builds hands-on skill in prompting, content production and personalised pathways, followed by the quality and risk controls that keep output trustworthy. The final day turns that skill into an AI-Enabled Learning Design Pack that participants can apply to their next programme and extend as their tools and data mature.