LXD PORTFOLIO

LXD Core Competencies

Applying learning theories and design frameworks (Artifact)

Framework: Backward Design

Mini Lesson: Starting a Small Native Garden Bed

- **Learning context:** Short, self-paced micro-lesson (30–45 minutes) ending in a practical planning artifact.
- **Target learners:** Beginner gardeners (hot climate) who want a simple, low-maintenance garden bed.
- **Constraints:** Limited time/budget; varying sun exposure; novice plant knowledge.
- **Successful completion:** Learner produces a realistic plant list, layout, and a two-week care plan aligned to site conditions.

Backward Design Course Map

Step 1: Learning Outcomes

1. **Select and justify plants (Apply/Analyze):** Given site constraints, select 5 native plants and justify choices using 3 criteria (sun, water, mature size, bloom season).
2. **Create a plan (Create):** Produce a simple bed layout and a two-week care plan.
3. **Reflect (Evaluate):** After finishing the plan, reflect on the process. Identify one strength, one challenge, and one change you would make next time.

Step 2: Determine Acceptable Evidence (Assessments)

Diagnostic (before):

- Site checklist (sun hours, bed size, soil/drainage, watering access, constraints).

Formative (during):

- Plant shortlist draft with 3-criteria rationale (sun/water/size).
- Rough layout sketch checked against spacing.

Summative (end):

- Final Native Bed Starter Plan (plant list, layout, 2-week care plan).
- Short reflection: Identify one strength, one challenge, and one change you would make next time.

Step 3: Plan Learning Experiences and Instruction (Activities)

1. Mini-lesson: Warm climate garden bed considerations - (sun/water/size)
2. Guided practice: learner completes site assessment and chooses plants
3. Rough draft: learner sketches layout with proper spacing
4. Finalize: complete two-week care plan and submit starter plan

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Alignment (Outcomes - Activities - Assessments)

- **Outcome 1 (select and justify):** Mini-lesson; guided plant selection (formative). Final product: Native Garden Bed Starter Plan.
- **Outcome 2 (layout and care plan):** Learner sketches a layout and creates a two-week care plan (formative). Final product: Native Garden Bed Starter Plan.
- **Outcome 3 (reflection):** Final plan reflection (summative).

Application of Learning Theories

- **Cognitivism:** process broken down into chunks to reduce overload (e.g., decision guide: sun/water/size and site checklist).
- **Behaviorism:** use criteria-based checks and feedback during drafting (e.g., spacing and criteria rationale checklist).
- **Constructivism:** authentic, context-specific task (plant choice, site layout, and care plan).
- **Self-Determination Theory (motivation):** support autonomy and competence through choice and incremental progress.

Integrating inclusive design principles and frameworks (Reflection)

I'm developing my ability to think about and integrate inclusive design principles by first understanding the audience - what learners already know, what motivates them, and what barriers or gaps might limit success. By understanding the audience, I can design experiences that are more meaningful and empowering for the learners, rather than using the "one-size-fits-all" approach. I'm using UDL as a practical guide to plan multiple means of engagement, representation, and action/expression, while also considering social and cultural context. I'm also drawing on what worked in my teaching - offering options for learners to demonstrate understanding (written, oral, or video) and expression by incorporating small-group collaboration (e.g., breakout rooms and class discussions). I intend to apply what I have learned about universal design and inclusivity in LXD projects by making accessibility and learner choice part of the design from the start.

Using research and evaluation skills (Reflection)

I am developing the core competency of using research and evaluation skills by making evaluation an integral part of my design process. It starts with understanding stakeholder goals and using diagnostic evaluation so I can design with inclusivity at the forefront. I will use formative evaluation throughout the design process to polish the learning experience, summative evaluation to judge overall effectiveness, and confirmative evaluation to see what holds up over time and continue improving the design. I will use tools like surveys, performance data, observations, and interviews, and I will keep evaluation fair and consistent by focusing on alignment (outcomes–activities–assessments) and using clear rubrics and checklists. Staying current on evaluation methods, LXD approaches, and emerging tools matters to me, and I plan to keep building my skill in designing learning experiences that are equitable and just.

Using knowledge of technology affordances and constraints (Reflection)

I am developing the core competency of using knowledge of technology affordances and constraints by being more intentional about selecting tools that match the learning goal. I want to choose technology that's fit for purpose and helps learners reflect, express their thinking, and collaborate in practical ways. The main criteria I use are simplicity, usability, and whether the tool is actually suited to the task. On the constraint side, I have to keep in mind platform limitations, plus the learning curve and time it takes for both learners and instructors to get comfortable with the tool. Finally, I plan to stay current on emerging tools, but only adopt what truly improves alignment, usability, and learning outcomes.

Creating design resources and documentation (Artifact)

Mini Lesson: Starting a Small Native Garden Bed – Planning Document

1) Learner Persona

Name: Isabel

Profile: 45-year-old, busy professional, woman. Beginner gardener living in the hot climate of Central Texas, small yard or bed space, limited budget, little plant knowledge, wants something low maintenance that does not require a lot of attention.

Needs: Clear guidance, simple plant choices, realistic steps, confidence building.

Constraints/Pain Points: Unsure about sun/water needs, limited time, may feel overwhelmed by too many options.

Motivations: Would like to make a native garden that attracts pollinators and acts as a resource of native bees and insects, along with adding beauty to the backyard.

Design implication: Keep the lesson short, use plain language, provide a simple checklist and a limited list of recommended native plants.

2) Mini-Lesson Storyboard / Course Outline

	Section	Content	Learning Activity	Resources/Deliverable
1.	Introduction	Why native plants work well in hot climates	Read/watch short intro	N/A
2.	Site Assessment	Sun, soil, drainage, watering access	Complete site checklist	Site checklist
3.	Plant Selection	How to choose 5 native plants based on site conditions	Select plants and justify choices	Plant shortlist
4.	Layout Planning	Spacing and simple bed design	Sketch garden bed layout	Rough layout
5.	Care planning	Two-week watering and care plan	Create care plan	Care plan
6.	Reflection	What worked, what was challenging, what would you change	Short written reflection	Reflection

3) Development Checklist

Development Checklist — Starting a Small Native Garden Bed

[ ] Learning outcomes are measurable and aligned to assessments

[ ] Site checklist is clear and easy to complete

[ ] Native plant list is limited and beginner-friendly

[ ] Layout activity includes spacing guidance

[ ] Care plan template is simple and realistic

[ ] Reflection prompt matches learning outcome

[ ] Instructions use plain language

[ ] Accessibility basics checked (headings, readable font, contrast, alt text if visuals are used)

Fostering workplace skills and professional relationships (Reflection)

I am developing the core competency of fostering workplace skills and professional relationships by focusing on clear, consistent communication with project stakeholders and making feedback a normal part of the design process. I'm building the habit of asking the important questions early to identify goals, constraints, and what success should look like for the learning experience. I will keep seeking feedback from stakeholders and mentors to strengthen my design process and uncover blind spots or areas to improve. Over time, I want to get better at facilitating working sessions and debriefs, documenting next steps clearly, and keeping projects moving while maintaining strong relationships.