From Prompts to Purpose-Built Tools

Using Generative AI and Open Educational Resources to Create Active Learning in Nursing Education

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No financial relationships to disclose. AI tools were used to generate images and assist with presentation development. The author developed and is responsible for all substantive content.

Session Learning Objectives

1 Describe a Structured Process

Use generative AI to develop active learning strategies for associate-degree prelicensure nursing education.

2 Integrate OER Sources

Use OpenRN or OpenSTAX as curated source material for AI-assisted patient cases, unfolding scenarios, clinical judgment exercises, prioritization activities, and collaborative problem-solving.

3 Apply Structured Prompting

Apply principles of structured prompting, source verification, bias mitigation, learner-level alignment, and human review.

4 Evaluate Purpose-Built Tools

Assess opportunities for purpose-built generative AI tools to support faculty instructional design and guided student engagement, clinical reasoning, and reflection.

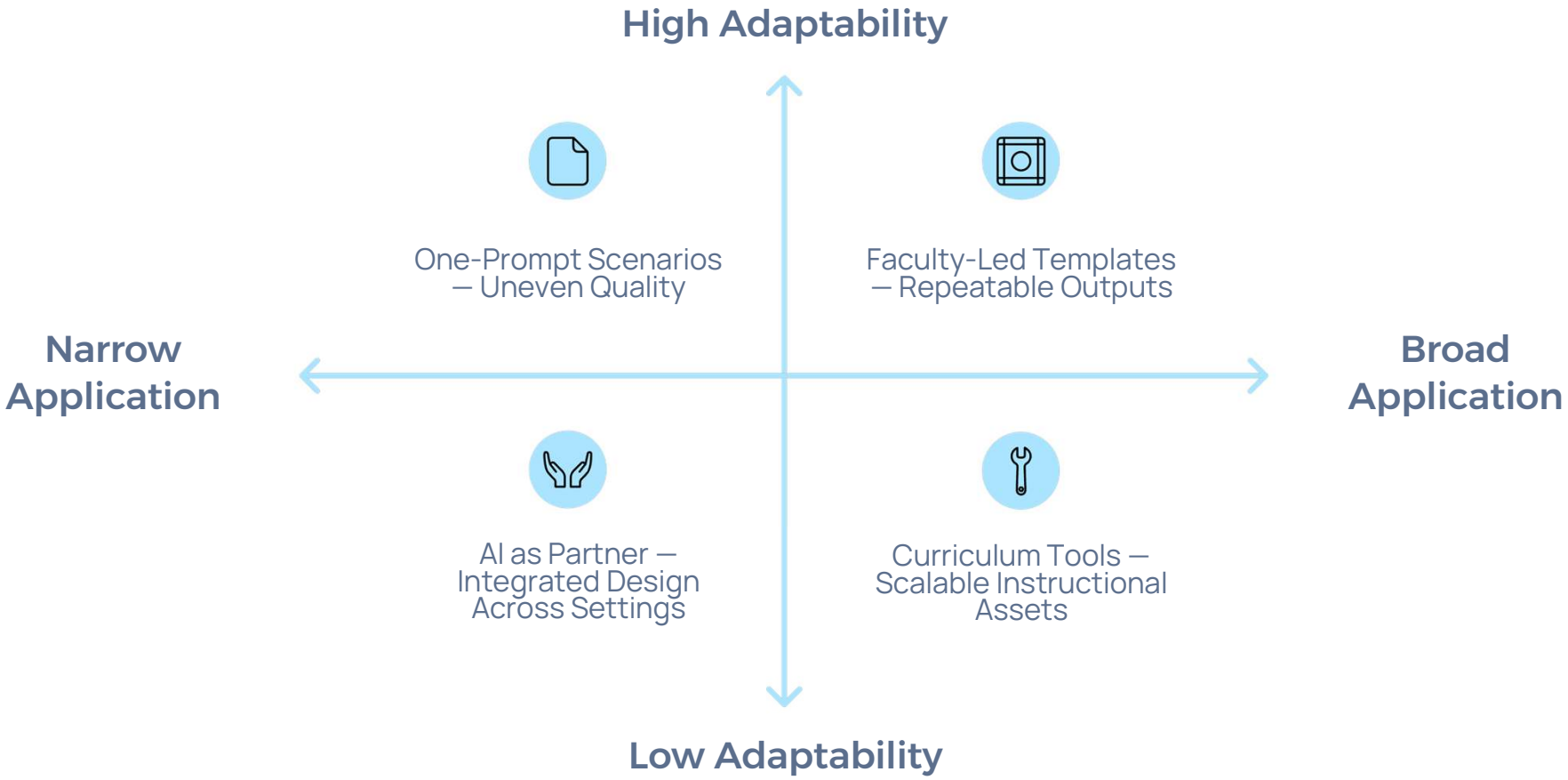
Beyond "Generate a Patient Scenario"

The Common First Use

One prompt, one scenario, uneven quality. Most faculty start here — and stop here.

The Bigger Opportunity

AI as an **instructional design partner** across classroom, skills lab, clinical preparation, and simulation — not just a one-off content generator.



A Structured Development Process

Plan

Define outcome and learner level; select and inspect sources; choose the activity format.

Prompt

Write a structured prompt; generate and revise the draft activity.

Verify

Verify content against the source; review for bias and learner-level alignment.

Select and Curate OER

Choose a Starting Point

Use **OpenRN** or **OpenStax** as example starting points for selecting content aligned to the outcome, learner level, and course context.

Select a Manageable Excerpt

Choose a focused section rather than an entire chapter. Record the source location, version, and reuse requirements.

Inspect the Content

Check the content itself — do not rely on the source name alone to guarantee accuracy or appropriateness.

Turn Source Content into an Activity Plan

Extract from the Source

- Identify the concepts, assessment cues, and reasoning demands the source supports.
- Define the student task, information released, expected response, and feedback approach.

Separate and Flag

- Distinguish source-supported content from invented case details.
- Leave unsupported clinical claims flagged for faculty verification before use.

One Source, Several Learning Formats

Patient Case

Identify cues, then explain their meaning. Choose the intended Bloom's level.

Unfolding Activity

Respond to new information and revise a priority as the scenario evolves.

Prioritization Exercise

Rank actions and defend the ranking with clinical rationale.

Concept Mapping

Connect assessment findings collaboratively while AI asks guiding questions rather than supplying the map.

The Maturity Continuum

From Prompts to Purpose-Built Tools

1

Level 1 — Ad Hoc Prompting

One-off requests; results vary widely.

2

Level 2 — Structured Prompting

Repeatable prompt frameworks; better consistency.

3

Level 3 — Prompt Templates & Libraries

Saved and shared within a faculty team.

4

Level 4 — Source-Grounded Workspaces

AI working from uploaded, curated OER content.

5

Level 5 — Purpose-Built Tools

Configured assistants with set instructions, sources, and guardrails — for faculty or students.

Build a Structured Prompt with CARE

Context

Provide the curated excerpt, learner level, outcome, setting, and activity duration.

Ask / Action

Specify the activity task, learner decisions, feedback approach, and expected output.

Result

Define the desired structure and quality of the generated activity.

Example

Provide a faculty-approved example of the desired structure to anchor the output.

Add source verification, bias review, and limits on unsupported additions as review requirements beyond the CARE labels.

A Reusable Prompt Example

Context & Ask/Action

For *[learner level/course]*, use *[supplied source excerpt]* to draft a *[duration]* *[activity format]* addressing *[outcome]*.

Result & Example

Provide *[number]* decisions, student instructions, staged information, and faculty rationales. Match the structure of *[faculty-approved example]*.

Review Requirements

Separate source-supported statements from fictional details. Flag unverified clinical claims, review bias and learner fit, and identify questions for faculty.

Revise the Prompt and the Activity

Use CLEAR to Review the Prompt

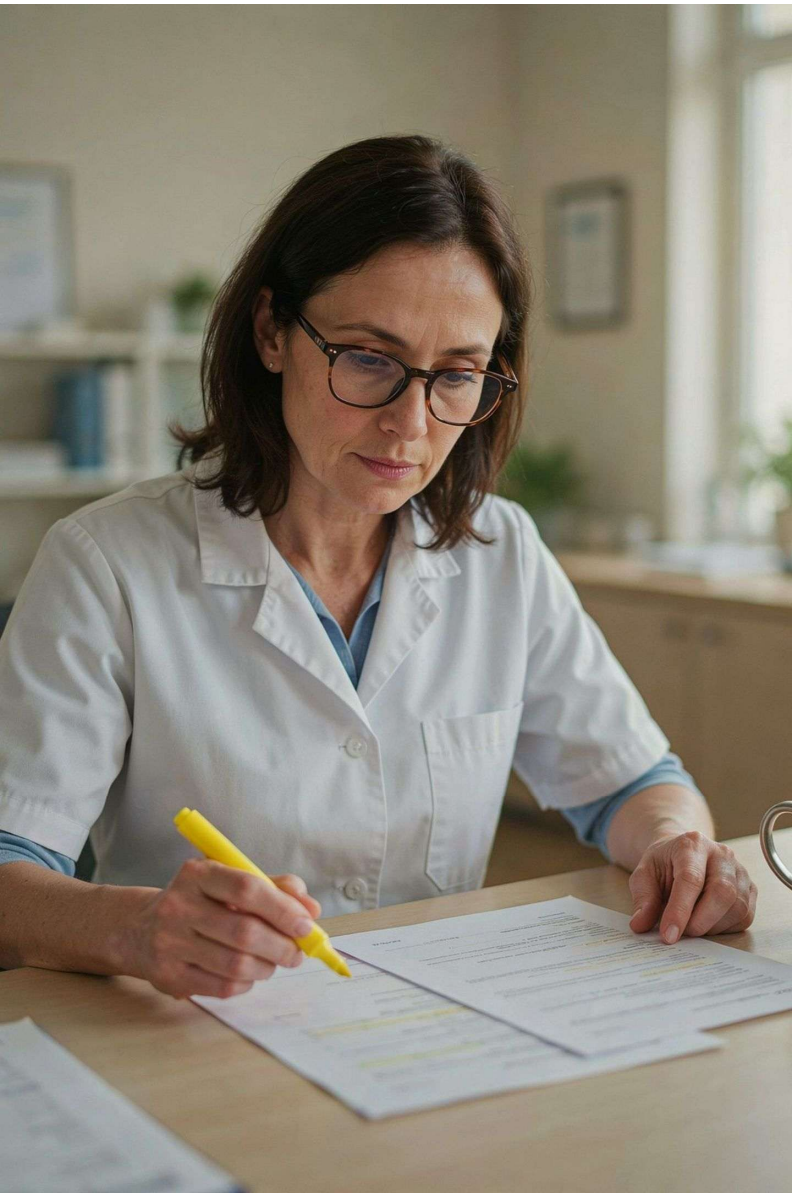
- **C**oncise
- **L**ogical
- **E**xplicit
- **A**daptive
- **R**eflective

Revise Thoughtfully

Inspect the draft and ask whether its reasoning and source support make sense. Revise the request accordingly.

Document Changes

Record substantive faculty changes and unresolved verification needs. **AI self-review does not replace faculty review.**



Verify Sources and Clinical Content

01

Compare Claims to the Source

Check rationales and answer keys against the actual OER; confirm each citation supports its claim.

02

Check Clinical Consistency

Verify clinical sequence and internal consistency; distinguish case assumptions from evidence.

03

Model Responsible Use

Disclose AI assistance, explain how output was checked, and show where faculty judgment changed it.

04

Assign Qualified Review

Resolve substantive uncertainty with qualified faculty review before any student use.

Why Ground AI in Curated Sources?

Ungrounded Output Risks

AI output can sound authoritative yet be inaccurate or unsupported — a particular risk in clinical education.

Traceability & Speed

Grounding in vetted, faculty-reviewed content improves traceability and makes verification faster.

OER Licensing Advantage

OER licensing allows legal adaptation and remixing — unlike most commercial textbooks.

Structured Prompting Framework Using OERs

Role

"You are an experienced ADN nursing educator and simulation designer."

Context

Course, learner level (e.g., first- vs. final-semester ADN), and setting.

Source

"Use only the attached OER excerpt."

Task

The specific activity type.

Alignment

Learning outcome, clinical judgment layer(s), and applicable standards.

Constraints

RN scope of practice, time limit, reading level, inclusive language, no real patient data.

Output Format

Headings, tables, and an answer key with rationales.

Review Bias and Learner Level

Bias Review

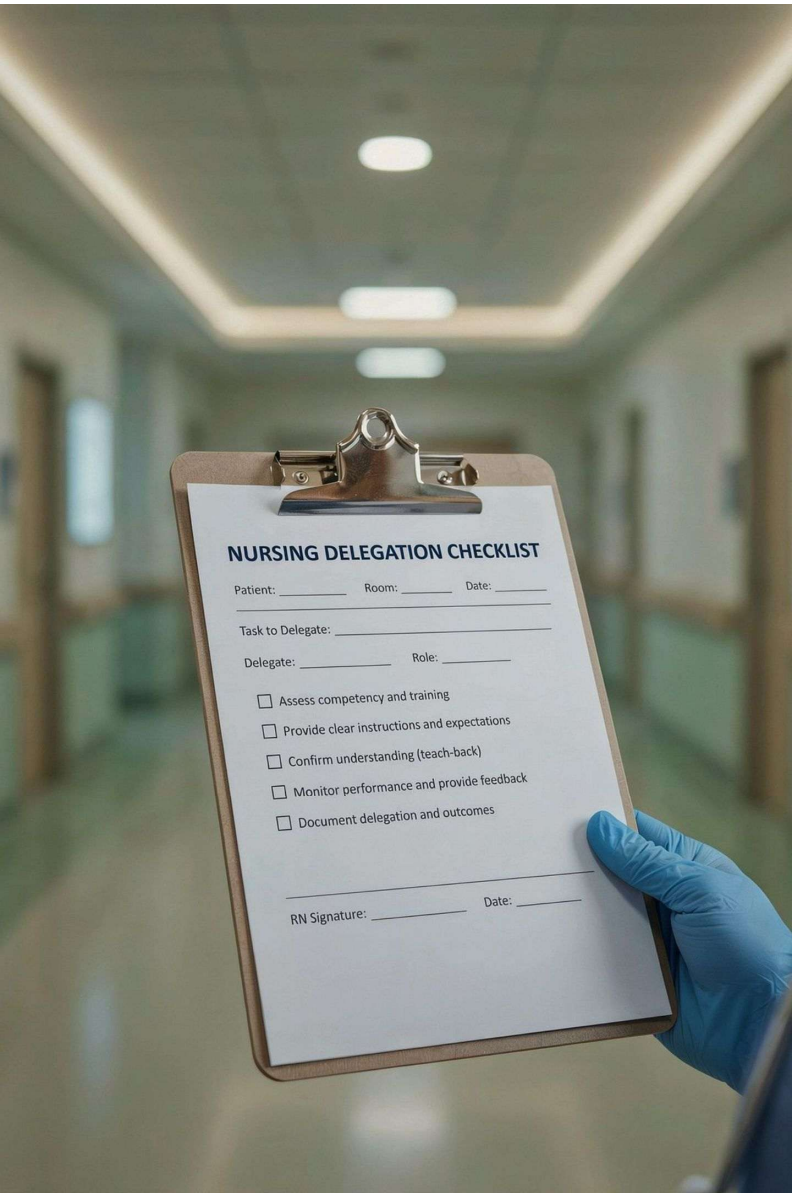
- Remove identity details that imply unsupported assumptions about adherence, behavior, or ability.
- Include relevant social context with respectful language and realistic variation.

Learner-Level Alignment

- Match vocabulary, case complexity, cues, and expected independence to the course.
- Check accessibility, timing, and equitable access — including whether students need a paid account to complete the task.

Summary: A Structured Design Process

1. **Define**
   Learner level, course, setting, learning outcome, and clinical judgment target.
2. **Curate**
   Choose OER source content and confirm the license.
3. **Prompt & Generate**
   Build a structured prompt and produce a draft activity.
4. **Verify**
   Check accuracy against the source and current evidence; screen for bias.
5. **Refine & Align**
   Adjust to learner level and objectives; add debrief and assessment pieces.
6. **Implement & Reuse**
   Pilot, collect learner feedback, revise, and save as a template or tool.



Review Using the Five Rights of AI Delegation

Right Task & Right Circumstances

Check educational purpose, learner context, stakes, and data sensitivity.

Right Person / Tool

Match AI capabilities and limitations to the specific activity.

Right Direction & Communication

Inspect instructions and verify that the output reflects the intended task.

Right Supervision & Evaluation

Verify output and decide whether to revise or trial before student use.

When a Purpose-Built Tool May Help

What Is a Purpose-Built Tool?

An experience configured for a **specific educational task, audience, and workflow** — with stable instructions, reviewed content, and a tested interaction pattern.

Toolkit Examples

- A **course tutor** providing hints and staged inquiry
- A **virtual-patient role-play** for clinical interviewing practice
- A focused **SBAR/ISBAR practice mini-app**

Consider when a repeated task needs stable instructions, reviewed content, and a tested interaction pattern.

Faculty and Student Uses Need Different Designs

Faculty Use	Student Use
Draft or adapt activities; identify content needing review. Keep facilitator keys separate from student-facing materials.	Course-tutor hints, virtual-patient interviewing, or guided concept mapping that **requires the learner's reasoning** — not AI-supplied answers.

Specify sources, boundaries, faculty escalation, and verification expectations. Define permitted AI assistance and disclosure for each assignment, drawing on the **NLN AI Toolkit's AI Assessment Scale** examples.

Evaluate Whether to Use or Build a Tool

Assess the Need

Ask whether a repeated task warrants an existing assistant, a reusable prompt, or a purpose-built experience.

Test Thoroughly

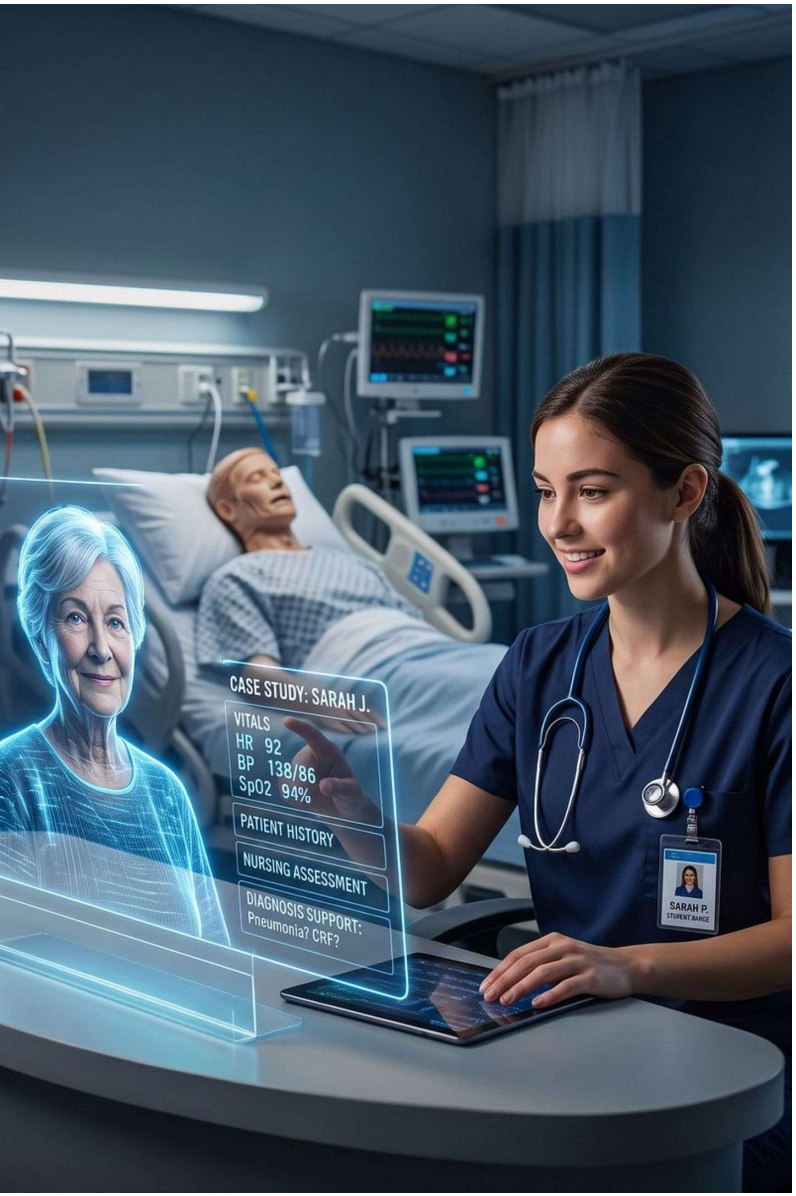
Test intended *and* unexpected learner inputs; inspect boundaries and unsupported feedback.

Review the Tool

Examine source handling, feedback quality, access, accessibility, data use, and maintenance requirements.

Apply the AI Literacy Rubric

Observe capabilities awareness, ethical responsibility, critical evaluation, and integration with nursing judgment.



Demonstration

Open access application – Level 5

https://simulationdesignhub.com/

Debrief the Demonstration

1

What Did the Tool Accomplish?

Identify what the AI generated effectively and where it added instructional value.

2

What Remained a Faculty Judgment?

Name the decisions that required human expertise, clinical knowledge, or ethical review.

3

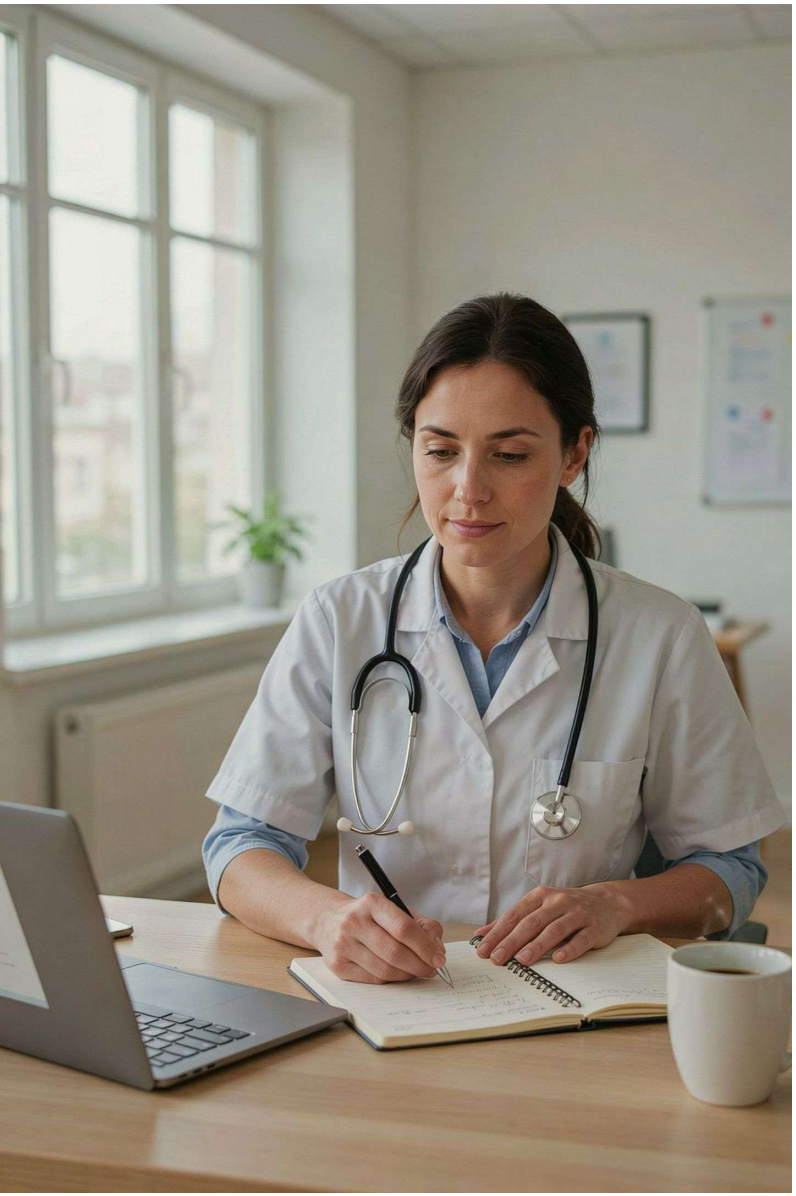
Apply the Five Rights

Walk through the Five Rights of AI Delegation as applied to this demonstration.

4

What Adjustments Are Needed?

Identify changes required before classroom or student use.



Where to Begin

Consider a Purpose-Built Tool

When a recurring task and review needs warrant it, move toward a configured assistant with stable instructions and reviewed content.

Draft, Verify, and Try

Draft one activity, verify it against the source, revise it, and pilot it on a limited basis before full deployment.

Choose One Outcome and One Source

Start with one existing learning outcome and one trusted OER source. Keep the scope small and manageable.

Questions & Discussion

NLN AI Toolkit

FACULTY TOOLKITS

Default

NLN Faculty Toolkits

Download free nursing education faculty toolkits

OER Starting Points

OpenRN and OpenStax — open-licensed nursing and health science content available for legal adaptation and remixing.

OpenRN: https://www.wistechopen.org/textbooks

OpenStax:https://openstax.org/subjects/nursing

Connect - LinkedIn

https://www.linkedin.com/in/liz-robison