

Sherpath AI



# 40 ways faculty are using Sherpath AI

Innovative applications in nursing  
and allied health education

Mamta Shah, PhD and Lina Lander, ScD MBA



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# We've structured our findings to capture both *breadth* and *depth*



Faculty aren't just using Sherpath AI, they're inventing with it! In interviews with 15 educators across nine institutions, we documented 40 distinct use cases developed organically in response to genuine instructional challenges.

Between summer and fall 2025, faculty across practical and registered nursing, dental assisting, and radiologic technology programs transformed how they teach, reducing cognitive overload while reclaiming time for what matters most: connecting with students.

**A pattern emerged:** Faculty are adapting Sherpath AI to align with their specific contexts, student populations, and pedagogical expertise. This collective innovation demonstrates that the tool amplifies faculty creativity, turning good teachers into force multipliers for student success.



**40** documented use cases showing the range of faculty applications



**Six** faculty spotlights that bring these practices to life



**An invitation** to faculty partners to share their work and shape Sherpath AI's implementation

# 40 ways faculty are using Sherpath AI

## A. Active learning and in-class engagement

1. Beginning class with Sherpath AI queries to level-set knowledge
2. Generating compare-and-contrast exercises (e.g., diabetic ketoacidosis vs. hyperglycemic hyperosmolar state)
3. Creating NCJMM-aligned questioning routines
4. Supporting whiteboard group activities
5. Providing analogies, examples, and explanatory metaphors
6. Helping students rephrase or deepen questions
7. Producing quick “explain like I’m a beginner” breakdowns
8. Generating trivia, games, or “Kahoot!-style” questions
9. Supporting discussion when students challenge or refine content

## B. Student support, coaching, and remediation

10. Creating personalized remediation quizzes
11. Explaining difficult concepts differently than the textbook
12. Supporting students in office hours with targeted prompts
13. Helping students write better study questions
14. Addressing students’ gaps in understanding complex disease processes through accessible explanations
15. Reducing the shame of asking “basic” questions
16. Encouraging students to use evidence-based sources to verify answers
17. Teaching students prompting skills
18. Helping students prepare for clinical, simulation, and transition to practice (TTP) by clarifying diagnoses, labs, and care plans



## C. Assessment, exams, and question design

19. Generating NCLEX® and HESI® exam-style questions
20. Creating distractors that match cognitive levels
21. Designing unfolding case studies for exams
22. Producing exam items aligned with Bloom’s taxonomy
23. Developing practice quizzes for students
24. Creating study guides
25. Creating micro-exams or quiz banks for new courses
26. Supporting faculty new to teaching with test-building activities

## D. Lesson planning and instructor preparation

27. Generating lecture outlines from Elsevier textbooks
28. Simplifying complex concepts for teaching
29. Creating speaker notes to accompany PowerPoint® slides
30. Verifying older lecture materials against current textbook content
31. Updating inherited slides from previous faculty
32. Breaking down advanced concepts into teachable steps
33. Checking clinical procedures for accuracy before class
34. Creating tables, comparisons, and summaries on demand
35. Generating explanations to accompany visuals/diagrams
36. Drafting reflective writing prompts or journaling assignments

## E. Faculty development, AI literacy, and instructional transition support

37. Supporting new instructors in translating large textbooks into manageable teaching units
38. Helping instructors reconcile differences between current clinical practice and textbook-required knowledge
39. Modeling AI literacy and professional skepticism for students
40. Providing consistent guidance across multi-instructor courses

These 40 use cases have also been mapped to the SAMR model (Substitution, Augmentation, Modification, and Redefinition) developed by Ruben R. Puentedura, which illustrates how technology transforms teaching practice. See figure below.



# Faculty uses of Sherpath AI mapped to the SAMR model

Substitution, Augmentation, Modification and Redefinition

<b>S</b> <b>Substitution</b> <i>Direct tool replacement</i>	1 Level-set knowledge queries to open class	2 Compare/contrast exercises (e.g., DKA vs HHS)	3 Create NCJMM-aligned questioning routines	4 Support whiteboard group activities	5 Generate analogies and teaching metaphors	6 Help students rephrase/deepen questions	7 Produce "Explain like I'm a beginner" breakdowns						
	8 Generate trivia, games, or "Kahoot-style" questions	10 Create personalized remediation quizzes	11 Explain concepts differently than the textbook	27 Generate lecture outlines from textbooks	28 Simplify complex concepts for teaching	29 Create speaker notes for PowerPoint® slides							
<b>A</b> <b>Augmentation</b> <i>Functional improvement added</i>	12 Support office hours with targeted prompts	13 Help students write better study questions	14 Address gaps via accessible explanations	19 Generate NCLEX and HESI-style questions	20 Create distractors matching cognitive levels	23 Develop practice quizzes for students	24 Create study guides	30 Verify older materials vs. current textbook	31 Update inherited slides from previous faculty	32 Break advanced concepts into teachable steps	33 Check clinical procedures before class	34 Create tables, comparisons, summaries on demand	35 Generate explanations to accompany visuals
	9 Support discussion as students challenge content	15 Reduce shame of asking "basic" questions	16 Encourage evidence source verification	17 Teach students AI prompting skills	18 Prepare for clinical/simulation/transition to practice scenarios	21 Design unfolding case studies for exams	22 Produce Bloom's taxonomy-aligned exam items	25 Build micro exams/quiz banks for new courses	26 Support new faculty with test-building activities	36 Draft reflective writing/journaling prompts	37 Translate large textbooks into teaching units		
<b>M</b> <b>Modification</b> <i>Significant task redesign</i>													
<b>R</b> <b>Redefinition</b> <i>New tasks previously inconceivable</i>	38 Reconcile clinical practice vs. textbook content	39 Model AI literacy and professional skepticism	40 Provide consistent guidance across multi-instructor courses										

SAMR model by Ruben R. Puentedura

## Six faculty spotlights

### Faculty 1 (Nursing-BSN-RN):

Turning Sherpath AI into a clinical reasoning partner

#### How Faculty 1 uses Sherpath AI

- Begins class with Sherpath AI questions to warm up students' thinking
- Has students ask Sherpath AI for NCJMM-aligned questions
- Encourages students to compare Sherpath AI answers with lecture slides
- Shows students how to adjust prompts for context (adult vs. pediatric DKA; acute vs. chronic)
- Uses Instructor Insights to tailor exam reviews

#### Impact

- Increased engagement
- More "light bulb moments"
- Greater metacognitive awareness
- Safer environment to ask foundational questions

*"I literally would every week go into the [Instructor] Insights page and look at the topics [students are querying]. I use that when I do a test review before exams... because my reasoning was if 20 [students in a class] asked more about the difference between two conditions, it told me that they need a little bit more emphasis on that. So, in my review I would focus on the differences [rather than just management]."*

**Faculty 1**

## Faculty 2 (Nursing-ADN-RN):

Supporting struggling students through remediation and equity

### How Faculty 2 uses Sherpath AI

- Generates custom practice questions for at-risk students
- Helps students articulate conceptual misunderstandings

### Impact

- Students can practice asking questions independently without fear or shame
- Faculty can identify conceptual gaps earlier
- Students get immediate, personalized explanations

*“I am the success coach for all four levels of our [ADN] program... If they do not make our benchmark on a unit exam, they come and see me. I do success sessions in each of the levels prior to a unit exam and the final... I meet with students individually as I need to. I had 135 separate one-on-one appointments this semester with students... What I see the most is they have a problem with answering ‘what is the first thing the nurse does?’ — the priority type questions... Except that they don’t always understand what the priority is, and Sherpath AI can help me show them that.”*

**Faculty 2**



### Faculty 3 (Nursing-LPN):

## Transforming the LPN Fundamentals classroom

### How Faculty 3 uses Sherpath AI

- Creates lecture outlines directly from the textbook
- Generates NCLEX-PN® exam-style questions
- Reviews Instructor Insights weekly to identify areas where students may need additional support
- Supports learners in skills lab with step-by-step explanations

### Impact

- Faster lesson preparation
- Better alignment with textbook
- Students learning dosage calculation, labs, and procedures
- Deeper understanding of students' learning gaps



*“When there’s something that I want to make sure that I clarify or I’m hitting in a way that the book also teaches, I will put it into the Sherpath AI and get it to pull from the book and then that way I can kind of gear my lecture towards the information that it gives me... I open up those lessons, and I’ll take those lessons and put them into Sherpath AI and select our book... and those are the points that I really need to make sure I hit while I’m in lecture with my students... I’ll ask it for LPN NCLEX-style questions... and a lot of times I like to put it in the PowerPoint® so that we can discuss it as a group in class on how we got to that answer. So, there’s also a traditional RN program on our campus... So, that teacher and myself, we talk a lot about what we’re using Sherpath AI for, how we’re using it, what we’re seeing the students like and don’t like, and we’re kind of bouncing ideas off of each other as well.”*

**Faculty 3**

## Faculty 4 (Nursing-BSN-RN):

### Using Sherpath AI to build courses and exams

#### How Faculty 4 uses Sherpath AI

- Builds new courses and course materials (medical math, exam banks, modules)
- Generates distractors, rationales, and alignment checks
- Creates interactive activities
- Models prompting and AI literacy for students

#### Impact

- Reduced prep time
- Stronger assessment validity
- More active learning
- Students become “partners” in AI-mediated learning

*“Writing exams is the bane of my existence... and so that’s honestly where I used [Sherpath AI] the most and where I found it most helpful... doing the tedious thing that I do not enjoy... I would feed it the topic and say, ‘give me an application-level question’... and it would give me a nice skeleton... in some cases I had to tweak them quite a bit, in some cases not so much.*

*This class is two hours and forty-five minutes long... I cannot lecture that whole time... so I did use Sherpath AI for that one as well to say, ‘how can I create a more active and interactive activity?’... I would pull it up [in class]... and say, ‘OK, somebody give me a prompt for how this is going to help you understand DIC better’... The students said, ‘explain it to me like a Gossip Girl,’ and so that’s what I typed in... and out came this hilarious description.”*

**Faculty 4**

## Faculty 5 (Nursing-BSN-RN):

### Real-time AI-based teaching in Pediatric and Adult Health courses

#### How Faculty 5 uses Sherpath AI

- Supports review and flipped-classroom sessions
- Generates sample questions during class
- Helps students compare respiratory or cardiac conditions
- Builds students’ prompting skills
- Helps students use explanations and rationales to refine thinking

#### Impact

- Greater engagement
- Active question-answer cycles
- Students learn to interrogate AI outputs and evidence-based sources

*“When I use Sherpath AI for my one-on-one with students, it’s usually if they’re not doing well in the course and then I can use the [tool] to make extra questions for them... [While preparing for a class] I typed in Sherpath AI to make me an activity on the four different shocks... it made me all these different scenarios... and [students] rotated through the different stations... Sometimes I have a hard time breaking down a [concept] to students to their level... so I’ll put in “explain this concept to third-semester nursing students” and it really helps me... I usually look at [the Instructor Insights page] once a week... and that kind of helps when in class I can say, ‘I noticed there were a couple of prompts for this’... [Students] feel more comfortable with me because they know that I’m using this tool... I want them to use it the right way.”*

**Faculty 5**

## Faculty 6 (Dental Assisting):

Using Sherpath AI as a first-year Dental Assisting Instructor in a hybrid adult education program

### How Faculty 6 uses Sherpath AI

- Generates quizzes and review questions for topics such as dental anatomy and morphology
- Facilitates small-group discussion during Elsevier Adaptive Quizzing (EAQ) and review activities
- Uses Sherpath AI during class when they want to verify or clarify information
- Checks evidence links when they are unsure, especially on procedures they have not used in decades

### Impact

- Supports a new instructor in teaching from a large textbook and meeting curriculum requirements
- Helps students access accurate explanations aligned with certification expectations
- Reduces quiz-preparation time and provides confidence in giving correct answers
- Bridges differences between long-standing clinical practice and textbook-based teaching

*“This year is my first year of teaching, so I’m learning all the tricks and tools of everything. I’ve been on the hands-on side for so many years, but the book side of things I have to reteach myself... so I have to go in there and I have to read and learn as I’m going along... [When] I go into Sherpath AI, it has the book in there and it’s pulling just from that dental side that I need, and not from everywhere on the web... I pull up Sherpath AI and say, ‘can you give me a review quiz on the X-rays or the radiology part of the modern dentistry?’ because it will pull it from [the textbook]... [When students] have a question during class and I don’t know the answer, I say, ‘pull up your Sherpath AI and let’s see what it says.’”*

**Faculty 6**

## Getting started: Lessons from early adopters

For faculty considering Sherpath AI, these 40 use cases may feel overwhelming. Where do you begin? Our interviews with early adopters revealed a consistent pattern: successful implementation starts small, builds gradually, and centers on transparency and verification.

### Here’s what worked for them:

- **Start with one high-impact use case.** Identify a single instructional need such as exam creation, remediation, or lecture prep and focus there first. Once you see value, expansion will emerge naturally.
- **Model Sherpath AI use explicitly with students.** Demonstrate the tool in class rather than assuming students will figure it out. Pull it up during lectures, invite student prompts, and normalize Sherpath AI as a learning tool.
- **Teach verification skills. Model professional skepticism.** Check evidence links, cross-reference responses with textbooks and clinical guidelines, and show students how to evaluate Sherpath AI’s outputs.
- **Use Instructor Insights weekly.** Examine what topics students are querying about to shape exam reviews, lecture emphasis, and remediation priorities. Let students know you’re responsive to their queries.
- **Collaborate with colleagues.** Share strategies through formal faculty development or informal conversations. Have clinical partners review Sherpath AI-generated content for accuracy.

## Conclusion: A call to faculty innovators

Across the 15 interviews, one theme stands out: Faculty are not looking for AI to replace their expertise. They want AI that amplifies their teaching, streamlines their workload, and deepens student learning. Sherpath AI is most powerful when instructors:

- integrate it into authentic learning tasks
- teach students how to question it
- track trends on Instructor Insights to adjust instruction
- treat it as a thinking partner
- model its use explicitly for students

The 40 uses documented here represent just the beginning. The most powerful innovations haven't been invented yet! They're waiting in your classroom, your clinical rotation, or your late-night lesson-planning session. Whether you are using Sherpath AI for efficiency-focused tasks or advancing toward pedagogical enhancement and learning design innovation, your experimentation matters. Share your innovations so we can learn from each other and shape the future of AI-supported education together.



