Graduate Level Assessment

Office of Assessment & APR

Fall 2022

Historically, many grad programs are based on an apprenticeship model and transferability of skills from one institution to another.
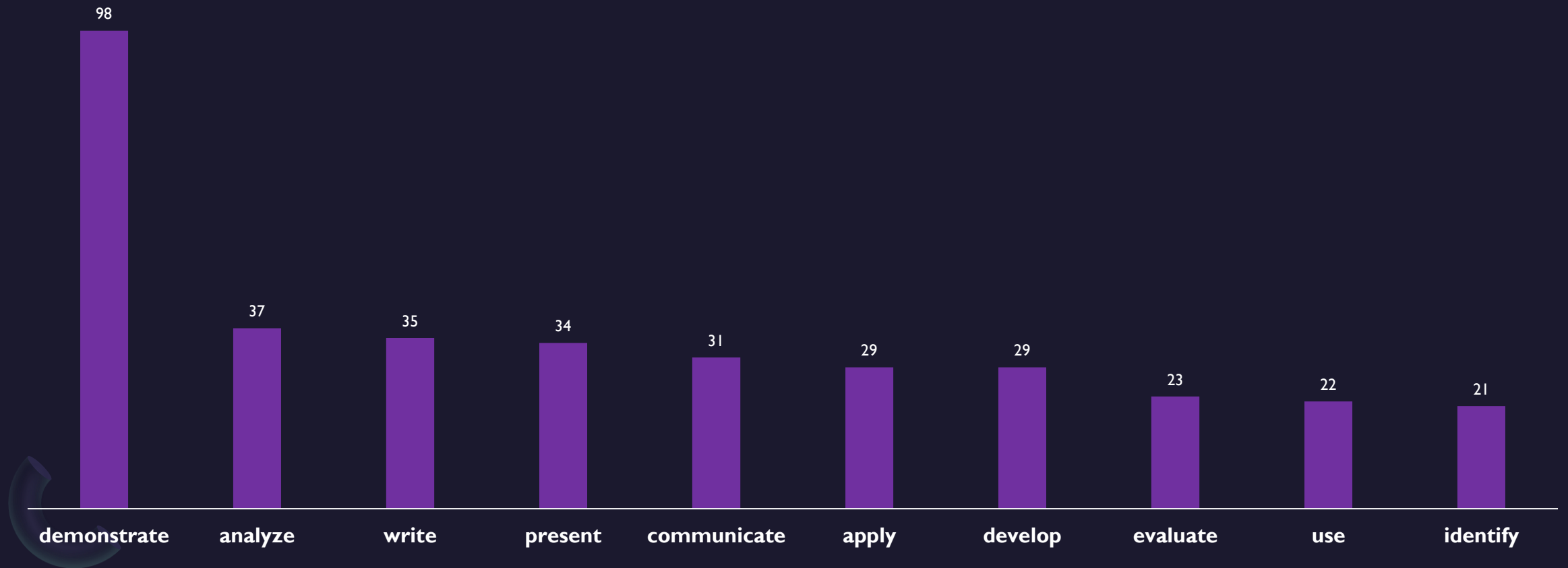
Authentic experiences and assessments → scaffolded engagement and contributions to the field.

How can you assess for authentic experiences and/or skill development in the field?
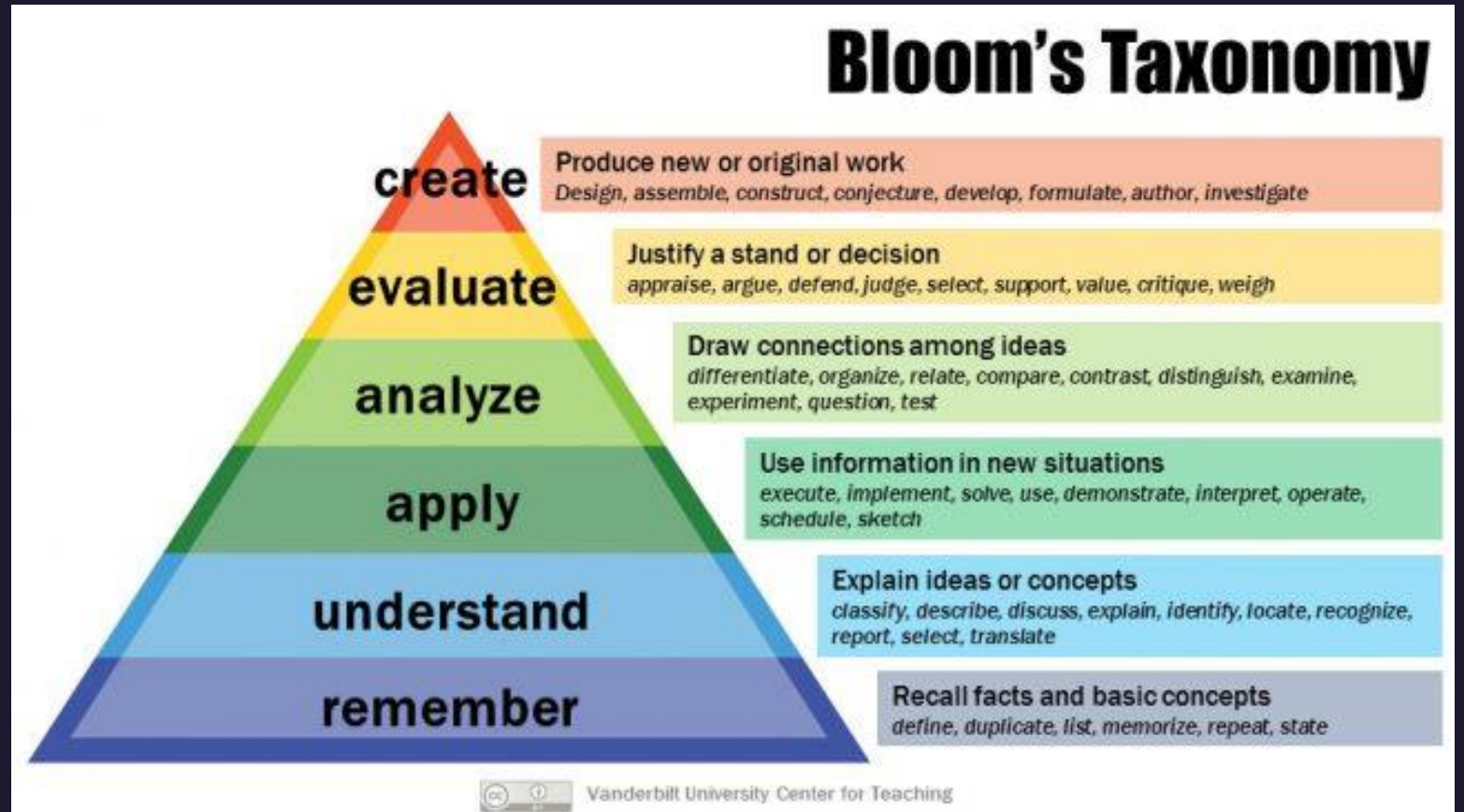
Top 10 SLO Verbs

demonstrate	analyze	write	present	communicate	apply	develop	evaluate	use	identify
98	37	35	34	31	29	29	23	22	21

SLO development

Undergraduate education emphasizes the foundational learning of "remember", "understand" and "apply" where graduate education starts with "apply" and focuses on "analyze", "evaluate" and "create".

Bloom's Taxonomy

create — Produce new or original work
Design, assemble, construct, conjecture, develop, formulate, author, investigate

evaluate — Justify a stand or decision
appraise, argue, defend, judge, select, support, value, critique, weigh

analyze — Draw connections among ideas
differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

apply — Use information in new situations
execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

understand — Explain ideas or concepts
classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

remember — Recall facts and basic concepts
define, duplicate, list, memorize, repeat, state
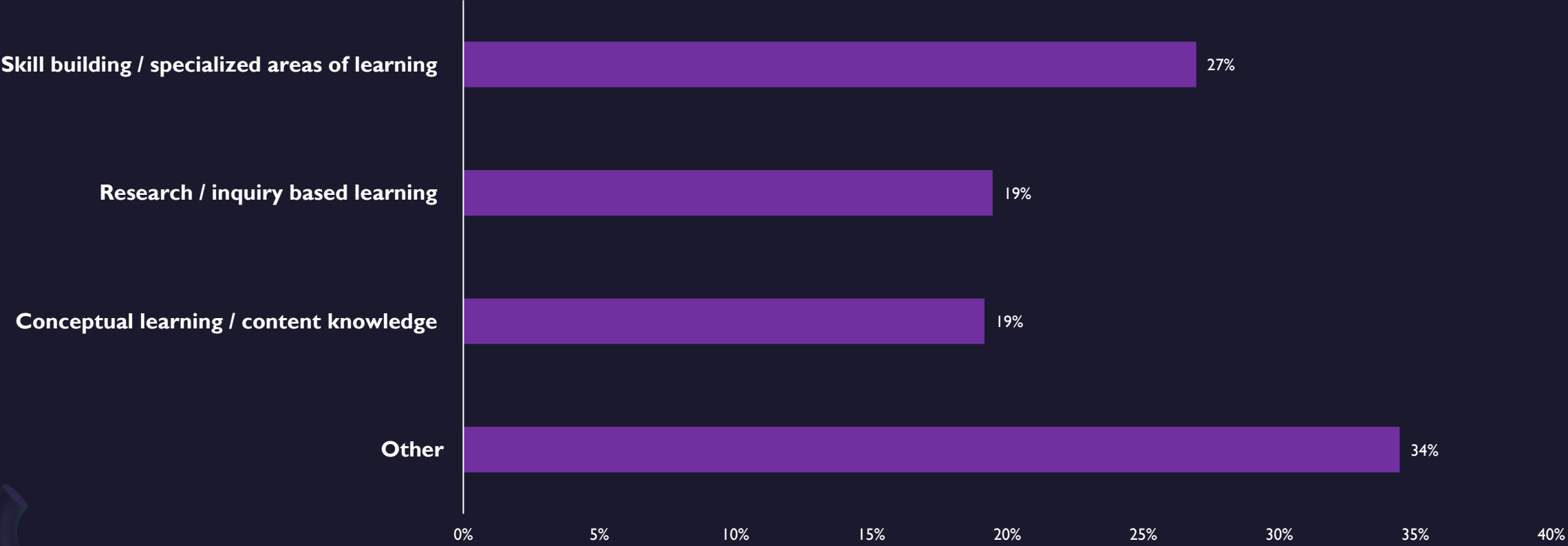
Vanderbilt University Center for Teaching

Student Behaviors

For the most part, instructors measure similar student behaviors at the Masters and PhD levels. "Demonstrate" is the top behavior for both.

Assessment for academia and industry is an important graduate student training piece. What evidence do you expect them to demonstrate?

Graduate SLO Content Areas

| Content Area	Percentage
Skill building / specialized areas of learning	27%
Research / inquiry based learning	19%
Conceptual learning / content knowledge	19%
Other	34%

Content

Skill building, research skills/knowledge and content knowledge are the top 3 content areas that instructors hold important to teach to graduate students.

What is the discipline specific content you expect your students to develop at their level of graduate studies?

SLO Measures
Top 50%

- Exam: 18%
- Assignment / class activity: 16%
- Degree Product: 12%
- Grade / GPA: 11%
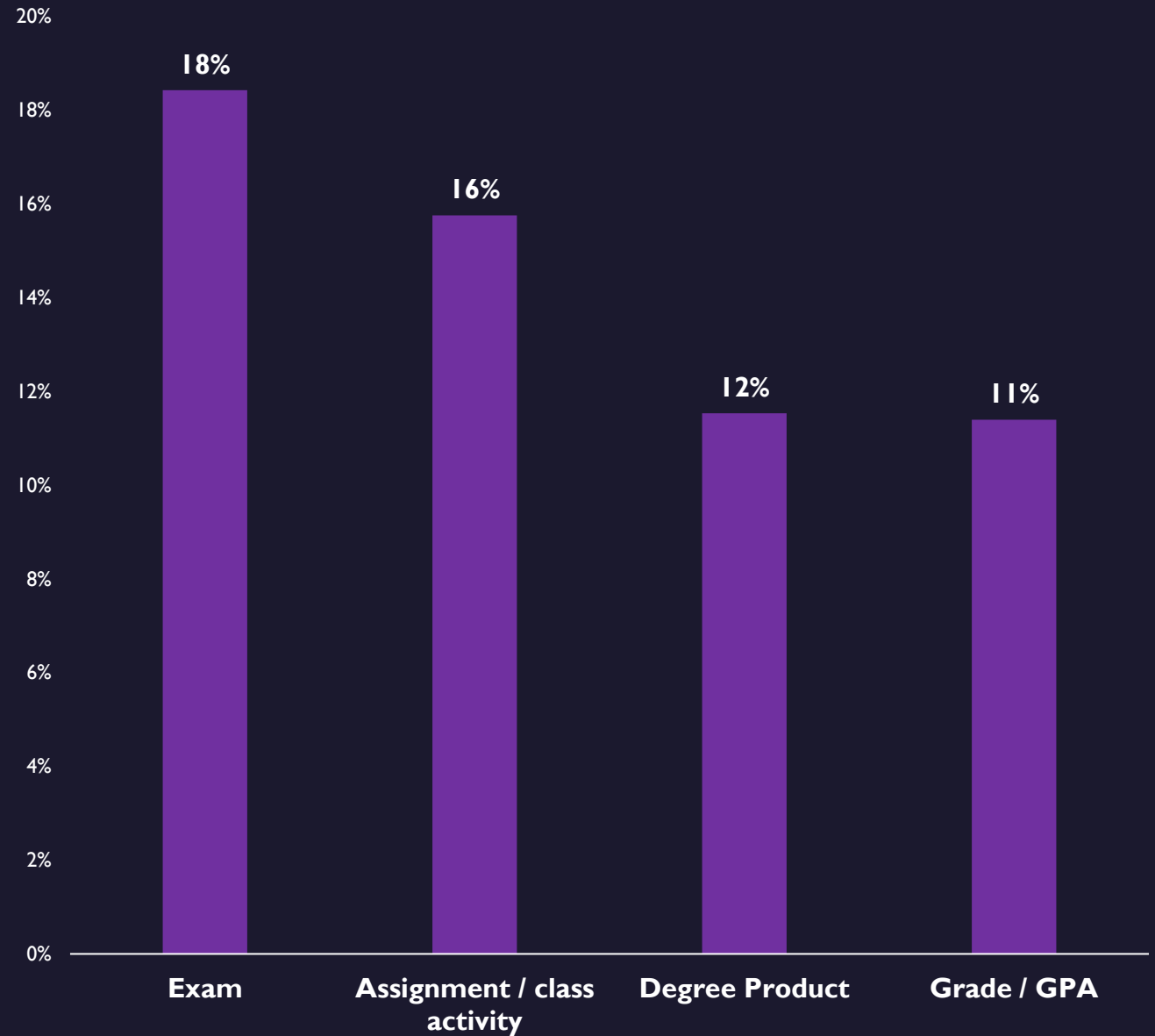
Measures of student success

Most graduate level assessment measures utilize summative assessment tools over formative.

UNM graduate programs utilize overarching performance ratings such as milestone completion and grades/GPA rather than measuring SLOs as isolated student behaviors.

What are the metrics to measure this student success? How do you know your students have reached the level of learning you expect?

Reported Program Revisions

Top 50%

35%

30%

25%

20%

15%

10%

5%

0%

33%

22%

None

Content / curriculum updates
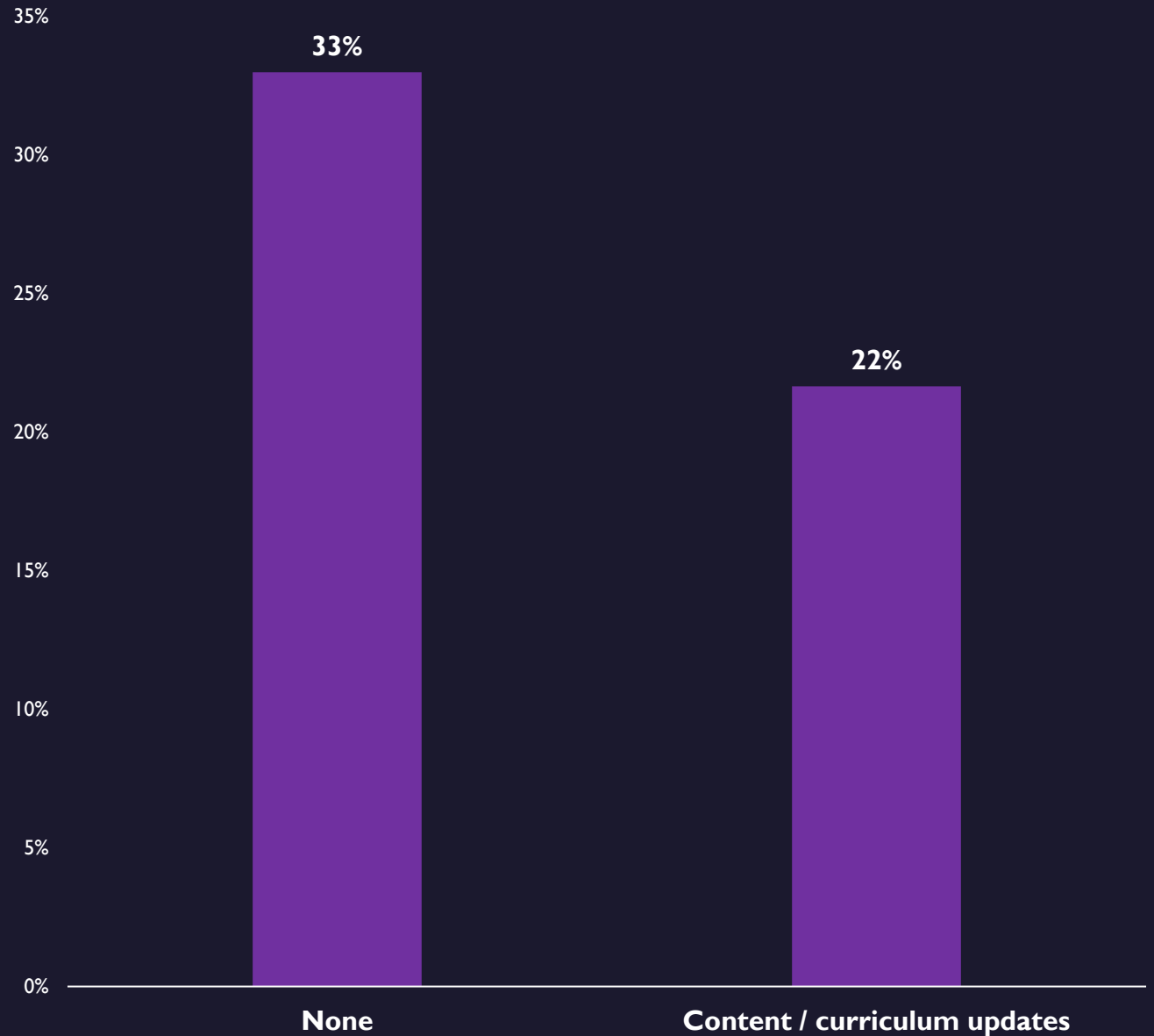
Program Improvements

Curriculum/content updates are the most frequently reported UNM changes made as a result of assessment.

Framing assessment around specific curriculum models: Learning is heterogeneous, new world of disciplines, professional socialization, relevance, applied learning,

Curriculum review: Course maps can help develop visualization of programming, connections, between courses and degrees, goal articulation, assessment alignment, and help understand student needs/scaffolding.

Graduate Level Assessment Revisions

| None	32	39%
Change measures	14	17%
Revise current assessment plan	10	12%
TBD	5	6%
Develop shared SLOs across courses	4	5%
SLO revisions	4	5%
Will review assessment process	4	5%

Assessment Improvements

Changes to measurement tools are the top way in which programs address assessment revisions.

Alignment is key for assessment success. Mapping SLOs to measures is indicative of getting the information wanted/needed about programming, performance and student populations.

Assessment Best Practices
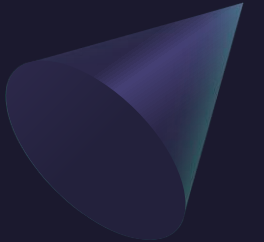
METACOGNITION

- ***Knowledge*** *of cognition*

- ***Regulation*** *of cognition (monitoring of progress and strategy use for managing learning)*

- ***Decision making*** *that is best for our learning*

- Students planning, adapting, and evaluating their learning is assessment

PEER ASSESSMENT

- Potential to decrease faculty workload

- Increases student skills and competencies beyond content knowledge

- Students care about their peers' comments and learn from reviewing each other's work

- Increased personal and professional networks

STUDENT INVOLVEMENT

- Keep students at the center of the process

- Builds on culture, lived experiences, and interests

- Promotes confidence and self-efficacy

Graduate Assessment

Independent student work/research: How are students involved in this and what are their indicators for success?

What are some reflective practices you direct your students to do?

What do you want from UNM regarding graduate level assessment? How can we best value it and best utilize it?

Resources

VALUE rubrics are open educational resources (OER) that enable educators to assess students' original work. AAC&U offers a proven methodology for applying the VALUE rubrics to evaluate student performance reliably and verifiably across sixteen broad, cross-cutting learning outcomes.
https://www.aacu.org/initiatives/value-initiative/value-rubrics

Assignment Charettes: Workshops for intentionally designing assignments
https://www.learningoutcomesassessment.org/ourwork/assignment-charrette/#1549481918909-e3d089cb-5051

Charette case study: https://www.learningoutcomesassessment.org/wp-content/uploads/2019/02/WashingtonStateUniversityExample.pdf

Curriculum Mapping
https://www.learningoutcomesassessment.org/ourwork/curriculum-mapping/#1549481688617-4ad00ac5-d527

Mapping toolkit: https://www.learningoutcomesassessment.org/wp-content/uploads/2019/02/MappingLearning.pdf

Curriculum improvement resources

- "An analysis of curricular innovation in higher education: challenges and a possible solution"

- "Analysing the curriculum development process: three models"

- "Back to basics for curricular development: A proposed framework for thinking about how interprofessional learning occurs"

- "Leading Change: Curriculum Reform in Graduate Education in the Biomedical Sciences"

- "Action Research for Graduate Program Improvements: A Response to Curriculum Mapping and Review'

- "Reactions to Changing Times: Trends and Tensions in U.S. Chemistry Graduate Education"

Thank You

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