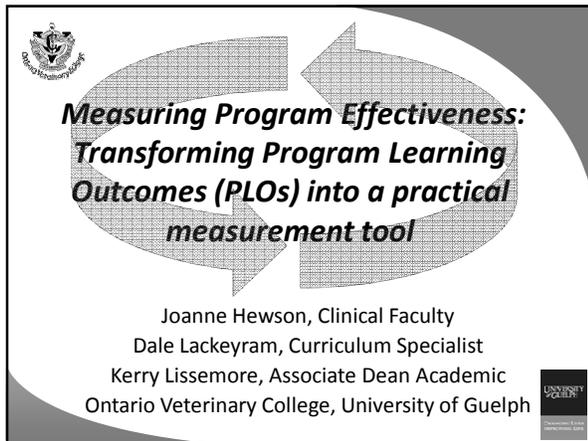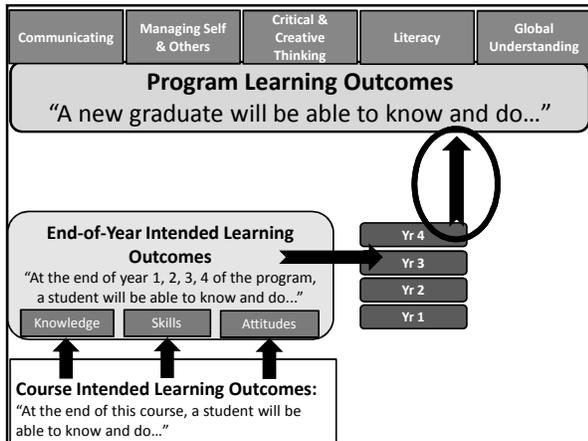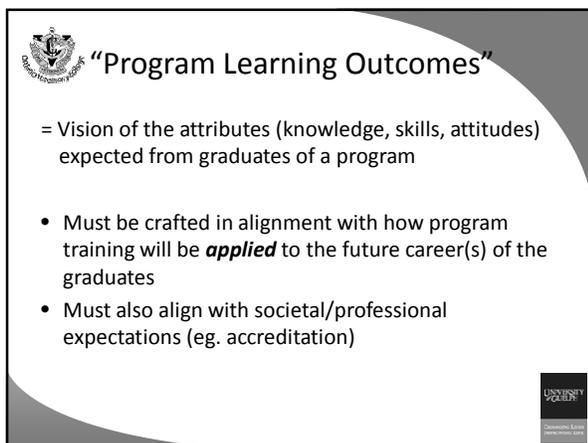**Measuring Program Effectiveness: Transforming Program Learning Outcomes (PLOs) into a practical measurement tool**

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Ontario Veterinary College, University of Guelph

| Communicating | Managing Self & Others | Critical & Creative Thinking | Literacy | Global Understanding |

Program Learning Outcomes
"A new graduate will be able to know and do…"

End-of-Year Intended Learning Outcomes
"At the end of year 1, 2, 3, 4 of the program, a student will be able to know and do…"

Knowledge | Skills | Attitudes

Yr 4
Yr 3
Yr 2
Yr 1

Course Intended Learning Outcomes:
"At the end of this course, a student will be able to know and do…"

"Program Learning Outcomes"

= Vision of the attributes (knowledge, skills, attitudes) expected from graduates of a program

• Must be crafted in alignment with how program training will be **applied** to the future career(s) of the graduates

• Must also align with societal/professional expectations (eg. accreditation)

Slide 1

Government

University

Accreditors

Need to show EVIDENCE of effectively achieving the PLOs

Slide 2

Our plan for today…

- Introduce the process of creating a behaviorally-based <u>Universal</u> Assessment Rubric derived from Program Learning Outcomes (PLOs)

- Discuss how data from this consistent assessment tool can be used by:
  – Learners
  – Educators
  – Administrators

Slide 3

Workshop Learning Objectives:

By the end of this workshop, participants will be able to:

- Adapt existing PLOs into specific competency statements for assessment
- Develop behavioral descriptors for an identified competency
- Identify a plan for how to integrate a Global Assessment Rubric tool into student assessment within their program or discipline

Desirable PLO attributes

(Adapted from Albanese et al, Med Ed. 2008)

The Program Learning Outcomes should:

- focus on performance throughout, and at the completion of, the curriculum.
- reflect the ability to apply what is learned in the program.
- be stated in terms of measurable behaviour.
- use a standard for judging competence that is not dependent upon the performance of other learners.
- inform learners and other stakeholders about the program expectations.

Step 1: (Activity)

Create a Program Learning Outcome…

- **On your worksheet, write down an intended PLO (Program Learning Outcome) for your specific discipline.**

"At the end of this program, a student will be able to…"

(Example: "At the end of this program, a student will be able to communicate effectively.")

Step 2: (Activity)

Expand your PLO in response to the following questions:

- **When is this outcome used in your discipline?**
- **How is it used? (What would that look like?)**

Example: "At the end of this program, a student will be able to:
  - *communicate effectively with clients*
  - *communicate effectively with colleagues, and*
  - *communicate effectively in written form as medical documentation."*

"Measuring Program Effectiveness: Transforming Program Learning Outcomes (PLOs) into a practical measurement tool"

Hewson J, Lackeyram D, Lissemore K.
Ontario Veterinary College, University of Guelph

Step 3: (Activity)

Select one of your modified outcome statements…

- **List ALL behaviors (sub-skills) that would need to be demonstrated to perform that outcome statement**

"At the end of this program, a student will be able to communicate effectively in written form as medical documentation."
- *Generate complete and accurate documents*
- *Document case information systematically*
- *Utilize professional language and style*
- *Adhere to legislative guidelines for medical records*
- *Produce written communications in a timely manner*

Step 4: (Activity)

Select one of your sub-skills…

- **Write a sentence describing what a student needs to demonstrate in order to indicate that they have achieved this sub-skill to the expectations of the program.**

Meets graduating entry-level expectations
"The student documents case information systematically and logically."

Step 4: (Activity)

Also…

- **Share this sentence with the person beside you… do they think they can visualize what that behavior actually looks like based on your choice of words? (Modify the sentence as needed.)**

Meets graduating entry-level expectations
"The student documents case information systematically and logically using a problem-oriented medical approach."

Step 5: (Activity)

For the same sub-skill…

- **Now write a sentence describing what a student would demonstrate indicating that they have NOT achieved this sub-skill.**

Does NOT meets graduating entry-level expectations
"The student documents case information but lacks a systematic presentation of the information. The logic is difficult to determine despite questions posed for clarification."

Step 6: (Activity)

Establish a scale/range of performance…

- **What levels of performance do you want to assess?**

Yes, AND	Yes	Yes, BUT	No, BUT	No

Yes, AND	Yes	Yes, BUT	No
Exceeds graduating entry-level expectations	Meets graduating entry-level expectations	Approaching graduating entry-level expectations	Significant improvement needed

Step 7: (Activity)

Complete descriptions for the remaining columns…

- **Ensure that the wording clearly differs**

Exceeds graduating entry-level expectations	Meets graduating entry-level expectations	Approaching graduating entry-level expectations	Significant improvement needed
The student documents case information systematically and logically using a problem-oriented medical approach, and conclusions are supported by concise, well organized information.	The student documents case information systematically and logically using a problem-oriented medical approach.	The student documents case information but lacks a systematic presentation of the information.	The student documents case information but lacks a systematic presentation of the information. The logic is difficult to determine despite questions posed for clarification.

Step 8:

- **Repeat the process until you have generated a row of descriptors for each sub-skill...** *for each PLO of your program*.

Written Communication				Overall Grade: XX / YY
The student uses a systematic approach when recording case information in the written record in accordance with legislative guidelines. Records, reports, case summaries or other written assignments are complete, accurate, informative, professional and done in a timely fashion.				Section Contribution to Total Grade: XX%
Exceeds graduating entry-level expectations	**Meets** graduating entry-level expectations	**Approaching** graduating entry-level expectations	**Significant improvement needed to** meet graduating entry-level expectations	Sub-skill is not applicable
The student documents case information systematically (e.g. using a problem-oriented medical approach, hypothetico-deductive method) and conclusions are supported by concise, well organized and logical information.	The student documents case information systematically and logically (e.g. using a problem-oriented medical approach, hypothetico-deductive method).	The student documents case information but lacks a systematic presentation of the information.	The student documents case information but lacks a systematic presentation of the information. The logic is difficult to determine despite questions posed for clarification.	NA
	The student adheres to legislative guidelines for medical records.		The student is unaware of, or often does not adhere to, legislative guidelines for medical records.	NA
Records, reports, case summaries or other written assignments are complete, accurate, informative, and demonstrate clear rationale for all assessments & treatments as well as prognosis.	Records, reports, case summaries or other written assignments are complete, accurate, and informative.	Records, reports, case summaries or other written assignments are complete and generally accurate with occasional mistakes. There is frequent need for clarification.	Records, reports, case summaries or other written assignments lack significant details or contain information that is incorrect or misleading.	NA
	Written communication is professional in terms of language and style.		Written communication is unprofessional in terms of language and style.	NA
The written communication is consistently produced on time, in accordance with the expectations of the rotation.	The written communication is produced but timelines for completion according to rotation expectations are not met.		The written communication is not produced or completed prior to the end of the rotation.	NA

Some helpful tips...

<u>ENGAGE your End-Users!</u> ...

...to help break apart each competency statement (PLO) into the skills required to master that competency
- Based on their expertise in the field of study

...to describe the skills in terms of what they see in the learning environment
- Which behaviors define graduating-level competency?
- Which behaviors are common errors? Or indicate excellence?

...to build language that applies across the program

Benefits of Aligning PLOs and Assessment Rubric

What do you anticipate would be the benefits of a Universal Assessment Rubric for:

- The Learner?
- The Faculty?
- The Program?

Benefits of Aligning PLOs and Assessment Rubric

Benefits to the learner:

- Makes the educational process truly learner-centred
  - Assessment becomes a more formative experience
  - Assessment criteria are directly relevant to the discipline
  - Assessment criteria are transparent (removes the "mystery" from grading)
  - Rubric standards are uniform across sections
  - Standards give students something to rise to
  - Assessment is based on abilities/behaviors and not on existing relationships

Benefits of Aligning PLOs and Assessment Rubric

Benefits to faculty:

- Empowerment to effect change
- Ownership in the assessment tool
- Gain a holistic perspective of the program
  - How does each activity contribute to achieving the PLOs?
  - Clarify what the specific LOs are for each activity
  - Adopt the sense of being part of the bigger picture
- Allows for the timely and informed use of evidence about learning on an ongoing basis
- Professional development – peers' standards

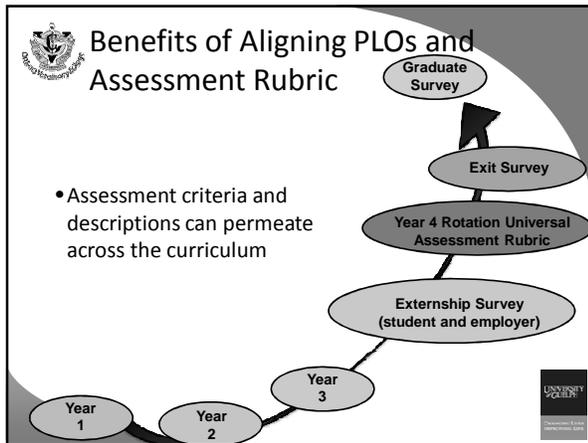## Benefits of Aligning PLOs and Assessment Rubric

Benefits to the Program

- Contributes to internal quality assurance processes
  - Track student performance over time
    - How is each student doing?
    - How is the program doing in delivering the PLOs?
  - Strategic curriculum reform to optimize efficacy and efficiency
- Enables reporting on the PLOs to internal and external stakeholders
  - Aligns the expectations of multiple stakeholders with how they are achieved in the program

Benefits of Aligning PLOs and Assessment Rubric

Graduate Survey

Exit Survey

Year 4 Rotation Universal Assessment Rubric

Externship Survey (student and employer)

Year 3

Year 1

Year 2

- Assessment criteria and descriptions can permeate across the curriculum
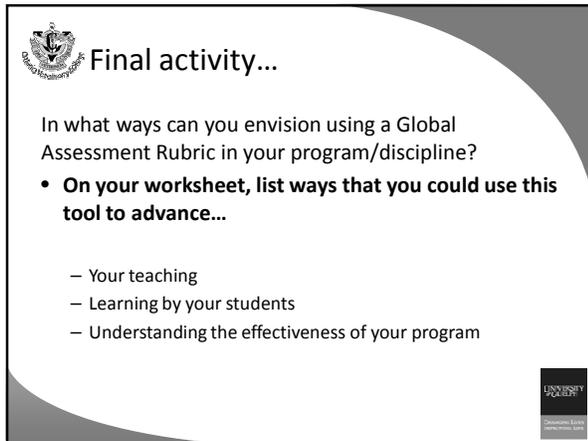
Final activity…

In what ways can you envision using a Global Assessment Rubric in your program/discipline?

- **On your worksheet, list ways that you could use this tool to advance…**

  – Your teaching
  – Learning by your students
  – Understanding the effectiveness of your program

Thank you!

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