Northern College Curriculum

As we prepare for PQAPA, and in general as we refine our curriculum, the need to differentiate outcomes and objectives is a core component of any course outline and delivery. This paper has been developed to address some frequently asked questions about learning outcomes and objectives and provide more detail on each as faculty move forward in curriculum development.

FAQs about outcomes and objectives (to get the discussion started)

Do objectives have to link to outcomes?

Yes

Do assessments have to link to outcomes?

Yes

Do assessments have to link to objectives?

Yes

Do you have to have objectives?

No, you can work directly from outcomes, but objectives help to define more specifically what the student needs to learn. They become a reference point for the instructor to assure the student knows what is expected of him/her

How many learning outcomes should I have?

This is tied to the length and weight of the course

How many learning objectives should I have?

This is tied to the number of learning outcomes.

Understanding Learning Outcomes and Learning Objectives:

Outcomes such as those provided through MTCU as Vocational Learning Outcomes, means the focus of the learning is on **outcomes**, not inputs. Outcomes are comprehensive and holistic. Incorporating them into learning and a learning plan means:

- There must be a **demonstration** of learning
- The **progress** carries through to mastery
- Ongoing **assessment** is implicit and support for the learner is continuous

The gold standard for creating outcomes and objectives is Bloom's Taxonomy. Recently revised, the two domains are cognitive and knowledge dimensions. They are provided in the following two tables[1] and are available from the website.

Table 1. The cognitive processes dimension — categories, cognitive processes (and alternative names)					
lower order thinking skills ———————————————————→ higher order thinking skills					
remember	understand	apply	analyze	evaluate	create
recognizing (identifying) recalling (retrieving)	interpreting (clarifying, paraphrasing, representing, translating) exemplifying (illustrating, instantiating) classifying (categorizing, subsuming) summarizing (abstracting, generalizing) inferring (concluding, extrapolating, interpolating, predicting) comparing (contrasting, mapping, matching) explaining (constructing models)	executing (carrying out) implementing (using)	differentiating (discriminating, distinguishing, focusing, selecting) organizing (finding coherence, integrating, outlining, parsing, structuring) attributing (deconstructing)	checking (coordinating, detecting, monitoring, testing) critiquing (judging)	generating (hypothesizing) planning (designing) producing (construct)

Table 2. The knowledge dimension — major types and subtypes			
concrete knowledge ———————————————————→ abstract knowledge			
factual	conceptual	procedural	metacognitive
knowledge of terminology knowledge of specific details and elements	knowledge of classifications and categories knowledge of principles and generalizations knowledge of theories, models, and structures	knowledge of subject-specific skills and algorithms knowledge of subject-specific techniques and methods knowledge of criteria for determining when to use appropriate procedures	strategic knowledge knowledge about cognitive tasks, including appropriate contextual and conditional knowledge self-knowledge

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[1] Bloom's Taxonomy: http://www.celt.iastate.edu/teaching-resources/effective-practice/revised-blooms-taxonomy/

Learning Outcomes[2]:

The key to writing a truly assessable learning outcome is using language that describes learning in such ***a way that it can be measured***. To state that a student will understand or know some fact or topic is a good learning statement, but not easily measured. How do we tell whether a student really understands a concept? Using Bloom's taxonomy we frame the statement with the correct verb, and write it in the future tense.

Here is one example:

<u>**Outcome:**</u> Students completing this course will explain and illustrate the elements and concepts of leadership

Learning Objectives:

To verify a learner has in fact learned what was intended, can be done through a learning objectives. Learning objectives describe what the learner should be able to achieve at the end of a learning period. Learning objectives should be **specific, measurable statements** and written in **behavioral terms**. In short, objectives say what we want the learners to know. A good learning objective focuses on the **learner's performance** rather than the **instructor's needs**. Using Bloom's taxonomy, we frame the objective in concrete terms using verbs in the present tense.
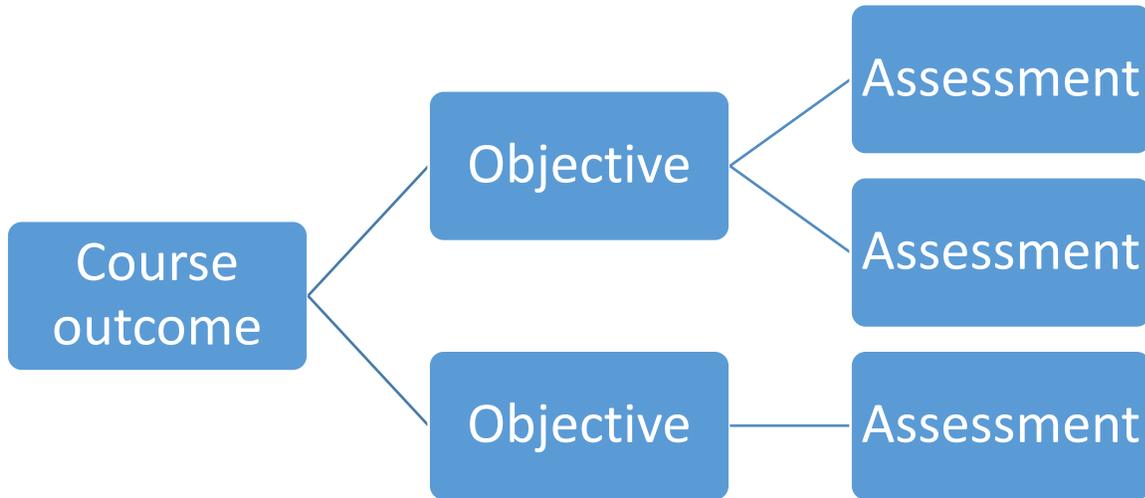
Here is one example:

Objective: 'Describe the differences between traditional and crisis leadership.'

Linking outcomes and objectives to assessment is the next step in using outcomes as a design for learning. Figure 1 graphically shows the flow.

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[2] Bloom's Taxonomy: http://www.celt.iastate.edu/teaching-resources/effective-practice/revised-blooms-taxonomy/

Figure 1. Linking course outcomes to objectives and assessments:

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                                              ┌──────────────┐
                                              │  Assessment  │
                              ┌───────────┐   └──────────────┘
                              │ Objective │   ┌──────────────┐
                              └───────────┘   │  Assessment  │
        ┌───────────┐                         └──────────────┘
        │  Course   │
        │  outcome  │         ┌───────────┐   ┌──────────────┐
        └───────────┘         │ Objective │───│  Assessment  │
                              └───────────┘   └──────────────┘
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The type of assessment can vary but it must reflect the objective statement and the outcome intent. Whether it is a test, a project, or a demonstration of skill, the assessment must link back to the objective/outcome.