Writing Effective Learning Objectives for CLOVER Activities

Summary of Key Ideas:

- The backward design framework guides effective course design.
- There are three steps to the backward design framework:
  1. Identify desired results
  2. Determine acceptable evidence
  3. Plan learning experiences and instruction
- Don't begin planning a course by centering the content, materials, or activities.
  - The goal isn't for learners to know ALL the content, no matter how well it's organized.
  - Materials are the vehicle, not the driver.
  - Be clear on the **why** before you plan the **how**.
- **Step 1:** Begin course planning by identifying desired results, written as learning objectives.
  - Learning objectives are what we want youth **to know** and **to be able to do** by the time they have finished the course. Whatever you ask the youth **to know** should directly prepare them to be able **to do**.
  - If needed, use this script to write learning objectives: By the end of this activity/lesson/course, learners will be able to _____.
  - When writing learning objectives, use verbs that accurately specify how youth will demonstrate what they've learned. (Research Bloom's taxonomy for help.)
- **Step 2:** Determine acceptable evidence. There should be a direct alignment between the learning objectives and the quiz questions.
- **Step 3:** Select the content and plan the learning activities and materials last.

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The Details:

Using the backward design framework guides curriculum writers and instructional designers to create learning experiences that produce desired learning outcomes.

There are three parts to this framework:

1 Identify desired results	2 Determine acceptable evidence	3 Plan learning experiences, instruction
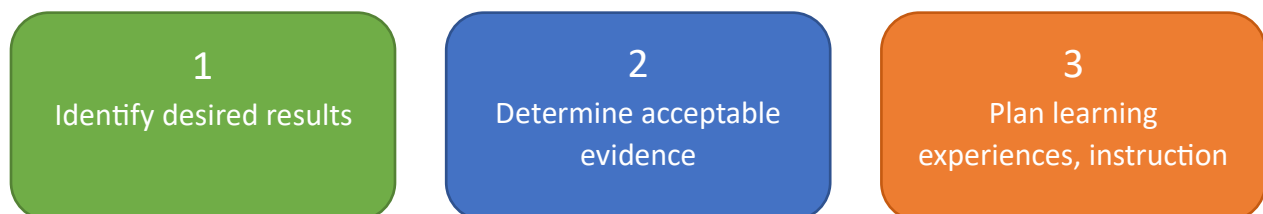
1. Identify desired results

Backward design asks us to articulate at the beginning of our planning what we want youth **to know** and **to be able to do** by the time they have finished the course. Be mindful that whatever you ask the youth **to know** should directly prepare them to be able **to do**.

By beginning with the end in mind, we articulate these desired learning outcomes as **written learning objectives**. More on that in a second.

Caution:
- **Content.** Although it's tempting to begin course planning with the content in mind, don't. Don't dive in and arrange the content into digestible segments. That step will come later. If the content is your starting place, the course will become content-heavy, lack clear learning objectives, and will result in unmeasurable, unclear outcomes. Remember this: the goal isn't for learners to know ALL the content, no matter how well it's organized.

- **Materials.** Don't center your course design around materials. Poems, books, websites, devices, art supplies, apps, etc. are tools to help learners reach the learning objectives. Beginning with aspirations to use a new cool website or app results in courses being about the tool rather than about producing desired learning outcomes. Remember: materials are the vehicle, not the driver.

- **Activities.** Activities, like materials, are tools to help the learners to reach the desired learning goals. Planning a course around a fun, engaging activity results in youth doing a fun and engaging activity—without a purpose. Remember this: be clear on the **why** before you plan the **how**.

Instead of beginning course planning by focusing on content, materials, or activities, begin by identifying desired results, written as **learning objectives**.

Remember, when writing learning objectives, focus on what you want youth **to know** and **to be able to do** by the time they have finished the course.

How should learning objectives be written? Here's a script:

By the end of this activity/lesson/course, learners will be able to _____.

> Examples:
> - By the end of this lesson, learners will be able to write a compound-complex sentence with proper punctuation.
> - By the end of the course, students will be able to explain the process of geyser formation.
> - By the end of this activity, club members will be able to build and launch a model rocket.
> - By the end of this lesson, learners will be able to calculate simple interest.

When writing learning objectives, use verbs that accurately specify how youth will demonstrate what they've learned. Research Bloom's taxonomy for assistance.

2. **Determine acceptable evidence**

How will youth demonstrate that they've learned the content and can do the skills outlined in the learning objectives? If the learning objective specifies that youth will learn to calculate simple interest, then a quiz question should ask them to calculate simple interest. If the learning objective states that the youth will be able to explain the process of geyser formation, then a quiz question should assess whether they have learned the process.

Remember this: There should be a direct alignment between the learning objectives and the quiz questions.

3. **Plan learning experiences and instruction.**

Now that you know which learning outcomes you're after and how youth will demonstrate that learning, it's time to select the content and plan the learning activities and materials that will support youth as they learn.

Sources:

Bowen, R.S. (2017). Understanding by Design. Vanderbilt University Center for Teaching. Retrieved [5/24/2023] from https://cft.vanderbilt.edu/understanding-by-design/

Wiggins, Grant, and McTighe, Jay. (1998). Backward Design. In *Understanding by Design* (pp. 13-34). ASCD.