Backward Design Lesson Planning

How do I determine and write lesson objectives? (identifying desired results)

Introduction

- All lessons, regardless of which lesson-planning model that you use, begins with identifying clear and measurable objectives. If you don’t know where you are going, then you will never know when you get there. Backward Design always lets you know where you are going because it forces you to consider your objectives first, which will constantly remind you on why you are doing the lesson.

- So, the first step in planning a Backward Design lesson is to ask yourself several questions:
  - What should my students know, understand, and be able to do?
  - What is worthy of understanding?

- Luckily for us (or unlucky for us), Hawai‘i’s Department of Education (DOE) has already established every CTE lesson objective (standards) for teachers and these can be found on the Alt Cert Website under Resources – CTE Pathway Standards. These objectives and standards are developed in accordance with mandates from the State and Federal Government. Part of your job as a future teacher is to become very familiar with the standards pertaining to your CTE subject area.

Part I: Determining Lesson Objectives

40/40/40 Rule

- However, there is typically always more content than can be reasonably covered in a semester and teachers always have to make choices of what objectives to emphasize in their lessons. To help you focus on what is important to teach, consider the 40/40/40 rule:
  - What do you want students to remember for 40 days?
  - What do you want students to remember for 40 months?
  - What do you want students to remember for 40 years?

- When you find something that you want students to remember for 40 years, we call this a “BIG IDEA” or an “ENDURING UNDERSTANDING.” Unfortunately, much of what we teach in school is of the 40 days variety (or maybe the 4 second rule for students? 😊)

- Another check for finding the BIG IDEA is to ask yourself during the beginning of lesson planning, “If I had to decide on only one or two things to teach, what would they be?”

- By narrowing down our ideas, we can decide what is important to teach (see 40/40/40 visual below):
What if we wanted to teach math to 2nd graders? If we examine the latest standards, you might find that counting, estimating lengths, and telling time are objectives that you think students should know and be able to do.

However, what would you do if you only had enough time to teach only one of those objectives? What would you do? The 40/40/40 rule helps us focus on the concept(s) that might be more fundamental than the others.

The 40/40/40 rule helps us focus on the concept(s) that might be more fundamental than the others.

The idea here is that if your 2nd graders can’t count, then they will probably have difficulty estimating lengths and telling time. That means if I was teaching 2nd graders math, I would always make sure to have counting as part of my lessons.

Obviously, you would try to teach telling time and estimating lengths to your 2nd graders and you might argue that counting is not the 40 year idea, but the beauty of the 40/40/40 rule is that it forces you to really consider about what YOU think is important to teach!
Part II: Writing Lesson Objectives
Action Verbs and Bloom’s Taxonomy

- Once you have decided on a BIG IDEA for a lesson, it is really important that you write the objective of that BIG IDEA in a clear and measurable way. An objective that is not clear or measurable is useless because whatever score that you give to your students at the end of the lesson won’t really represent the learning you intended. You want the score given to reflect the learning and that starts by making sure you have a clear and measurable objective.

- You can make your objectives clear and measurable by turning them into student learning outcomes (SLOs) using Bloom’s taxonomy. An SLO is something that requires a specific action (ACTION VERB) from your students that YOU CAN ACTUALLY OBSERVE!

- Which of the following actions can you actually observe your students doing?
  1. Understand
  2. Knowing
  3. Reflect

- ANSWER: None of them!

- WHY?: Because each action takes place in your students’ mind and we can’t directly observe inside the mind of people – well, not yet anyway! So, we need actions that we can actually see.

- Which of the following actions are clear?
  1. Appreciate
  2. Respect
  3. Listen

- ANSWER: None of them!

- WHY?: Because each action has multiple interpretations and are very difficult to define. Someone else’s interpretation of appreciation or respect may be very different from someone else’s. So, we need actions that have clear criteria associated with it and we try to avoid using these terms in our lesson objectives.

TO ENSURE THAT WE ALWAYS HAVE CLEAR AND MEASURABLE LESSON OBJECTIVES, WE USE ACTION VERBS FROM BLOOM’S TAXONOMY.

- Bloom’s taxonomy is a chart of active and measurable verbs that represent six different levels of understanding.

- Your entire lesson (assessment and instruction) is determined by which action verb you choose. If you change your action verb, then you might need to revise your entire lesson.

- See the chart below (some ACTION VERBS may be found in more than one level because it depends on how that action verb is used in a lesson):
### Bloom’s Taxonomy

<table>
<thead>
<tr>
<th>Level of Understanding</th>
<th>Simple Definition</th>
<th>Example</th>
<th>Example ACTION VERBS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Knowledge</strong></td>
<td>Student repeats information.</td>
<td>Identify an IPhone</td>
<td>Arrange, classify, define, draw, duplicate, identify, label, list, locate, match, memorize, name, order, outline, recite, recognize, relate, recall, repeat, reproduce, select, state.</td>
</tr>
<tr>
<td>(lowest level of understanding)</td>
<td></td>
<td></td>
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<tr>
<td>2. <strong>Comprehension</strong></td>
<td>Student describes or explains information.</td>
<td>Describe an IPhone</td>
<td>Convert, classify, describe, discuss, estimate, explain, express, extend, generalize, paraphrase, rewrite, summarize, translate.</td>
</tr>
<tr>
<td>3. <strong>Application</strong></td>
<td>Student uses information.</td>
<td>Use an IPhone</td>
<td>Apply, calculates, change, choose, compute, demonstrate, employ, illustrate, make, manipulate, model, modify, operate, predict, prepare, produce, role-play, show, sketch, solve, use.</td>
</tr>
<tr>
<td>4. <strong>Analysis</strong></td>
<td>Student compares two pieces of information.</td>
<td>Analyze an IPhone with the Android Phone</td>
<td>Analyze, appraise, breakdown, compare, contrast, diagram, deconstruct, differentiate, discriminate, distinguish, examine, experiment, infer, investigate, relate, separate.</td>
</tr>
<tr>
<td>5. <strong>Synthesis</strong></td>
<td>Student combines pieces of information to create new information.</td>
<td>Create a new phone (Combine IPhone w/Android Phone to make new phone)</td>
<td>Assemble, categorize, combine, compile, compose, create, devise, design, develop, generate, modify, reorganize, plan, rearrange, reconstruct, revise, rewrite, synthesize.</td>
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<tr>
<td>6. <strong>Evaluation</strong></td>
<td>Student judges information.</td>
<td>Evaluate the new IRoid phone : ) (Is it any good?)</td>
<td>Appraise, argue, assess, conclude, contrast, criticize, critique, defend, evaluate, interpret, justify, support, value.</td>
</tr>
<tr>
<td>(highest level of understanding)</td>
<td></td>
<td></td>
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</tbody>
</table>

- To write student learning outcomes, first, identify the level of learning that you want, then choose a verb from that category that best describes what you want the student to know, understand, or be able to do.

- Let us use our example of Gary from the Backward Design Introduction page. Remember Gary was the high school English teacher that approached his lesson planning by coming up with the instruction first (showed video of modern day Romeo and Juliet), then gave them a multiple choice quiz at the end (assessment), and then figured out why he showed the video after being pressed by his principal (objective).

- Gary wants his students to understand Romeo and Juliet. Backward Design requires us to first determine the lesson objective(s), so that we know how to design the rest of the lesson.
Below are clear and measurable student learning objectives (using Bloom Taxonomy action verbs) that might be written by Gary for increasing levels of understanding Romeo and Juliet:

- Students will
  - identify a scene in Romeo and Juliet (knowledge)
  - explain a scene in Romeo and Juliet (comprehension)
  - role-play a scene in Romeo and Juliet (application)
  - compare scenes in Romeo and Juliet (analysis)
  - create a new scene in Romeo and Juliet (synthesis)
  - interpret a scene in Romeo and Juliet (evaluation)

How does Gary choose which lesson objective he should use above? Apply the 40/40/40 rule!

In my opinion as teacher (who doesn’t teach English!), I would think that being able to “interpret a scene in Romeo and Juliet” would be something I would always have my students do (40 year idea). However, whatever you choose is up to you as the teacher!

**Next Step – Assessment!**

Now, that I have determined a clear and measurable lesson objective, Backward Design requires me to determine how I plan to assess the students next!