Thinking Backward in Your Course and Lesson Design

Are you designing a new course, rethinking a current one, or just updating a unit/module? If you are, now is the time to start “Thinking Backward” in your design process. The backward course design method is an effective technique that can help ensure that your instructional processes from teaching content, conducting activities, to designing assessments are aligned with course objectives that promote student learning. Instructional alignment is a key component of the design process; without it the instructor will not know if students are learning what they are teaching.

Below are the three basic steps to implement the backward design in your instructional planning followed by recommended implementation strategies (Wiggins & McTighe, 2005; Hard et al., 2022; Hudson et al., 2022).

1. **Identify Desired Outcomes:** What should students know or be able to do once a lesson is completed?

2. **Identify Acceptable Evidence (Assessments):** How will you determine if students have met your desired outcomes?

3. **Plan Instruction:** What learning experiences will help students achieve your desired outcomes?

How to Implement Backward Design

1. **Identify Desired Outcomes**

   The initial step in the backward design process is to identify your desired outcomes, i.e., what knowledge and/or skills you want your students to develop. Desired outcomes should be based on course learning objectives and can include additional outcomes such as textbook objectives, program / professional standards, university-level outcomes, or your own professional judgement and experience.

   - Starting with this key step allows instructors to ensure that their instruction is aligned, that is, teaching methods, activities, and assessments all match what is expected that students will learn.
   - Beginning the process with learning outcomes allows the instructor to consider both specific and overarching course goals simultaneously.
     - For example, if course objectives include higher level skills such as developing critical thinking, application to real-world situations, or writing competence within the domain, then the instructor can focus on incorporating these higher-level skills when considering more specific content-based objectives.
   - By keeping student learning goals at the forefront, instructional design can be more student-centered and lead to increased student engagement.

2. **Identify Acceptable Evidence (Assessments)**
Once the desired student learning outcomes have been identified, the second step is to determine what “acceptable evidence” will illustrate that students are meeting the desired learning outcomes? The acceptable evidence refers to what assessment method you will use to determine whether students met the learning goal.

- Ideally, a variety of assessments, continually used throughout the course or unit/module, will be used to gather evidence of student performance.
  o Vary assessment methods to promote higher-level skill development (e.g., application, analysis, synthesis, and evaluation).
- Assessment may be either formative or summative in nature.
  o Formative assessments include class activities, discussions, teacher probes / questioning, or practice quizzes and/or assignments that have a minimal impact on grade.
  o Summative assessments include quizzes, exams, assignments, papers, or projects that will be more heavily reflected in grades.
- Formative assessments can be used in the classroom to keep students actively engaged and enhance their learning. These assessments can be integrated within the classroom lesson.
  o Allows the instructor to gather information about student progress and adjust instruction as necessary.
  o Allows students the opportunity to work with, review, or elaborate on skills and ideas they just learned as well as receive immediate feedback on their performance.
- Utilize authentic assessments that measure more than just content-based learning.
  o Authentic assessments measure higher-level skills that have real-world applications. Examples include observations, case study analysis or creation, business, care, or lesson plan development, and self or peer-evaluations.
- Frequent assessments can enhance learning and engagement with class material as well as reduce test anxiety.
  o Frequent assessment provides students with continuous feedback about their level of knowledge and skill development.

3. Plan Instruction
The third and final component is to plan and design your learning activities and instruction. Your learning activities and instructional materials should provide students with the knowledge and skills required to meet the learning objectives and perform the desired outcomes. Now that you have identified the learning goals and assessment methods in steps 1 and 2, planning instruction becomes a question of how I am going to design instruction and activities, rather than what am I going to teach. One does not have to think, how will I assess this activity, the question becomes what activity will help my students acquire necessary skills or knowledge.

- Knowing your expectations for learning (learning objectives & assessment methods) will inform how you will teach the topic.
  o If your assessments expect higher-level knowledge and skills, instruction must prepare students to meet those higher-level learning goals.
- Teaching focus can be directed more towards guiding student knowledge and skill development, rather than a focus on presenting content.
- Utilize your assessment tools to develop and support learning.
  o Practice tests and questions can be utilized often to promote improved retrieval of knowledge (retrieval effect).
  o Authentic assessments, whether informal or formal, should focus on the process of skill development and incorporate opportunities for feedback and revision.
One More Step: Reflect and Adapt (Hudson et al., 2022)

Like any good instructional application, the backward design process is not intended to be one and done design method. It should be a continuous process of reflection and adaptation of instructional effectiveness and design.

- Utilize assessment data to inform instructional decisions, consider both formative and summative assessment data.
- Keep notes on what is working and what is not for future revision decisions.
  - Consider making changes immediately while ideas are fresh.
- Evaluate feedback from students.
  - In addition to end of semester evaluation ratings, consider surveys or discussions throughout the semester regarding course activities.
- Constantly monitor student performance on all instructional tasks and assessments.

Important Considerations When Implementing Backward Design

1. Take time to plan. While the process entails three basic steps, to make it worthwhile it does require a significant investment in planning, organization, and time.
2. Create a visual representation of your backward design alignment. Seeing how your assessments, activities, and learning outcomes are connected helps you stay focused on important learning goals, rather than the minutia of covering content.
   - Samples of backward design templates can be found online and at the following site: https://jaymctighe.com/resources/
3. Think bigger and higher. Keep focus on the overarching learning goals you want for your course or unit and not just the specific content goals. Focus on higher-level learning objectives (e.g., see Bloom’s taxonomy) to ensure your students are developing skills in addition to the acquisition of knowledge.

Benefits of Backward Design (Beers et al., 2022; Michael & Libarkin, 2016; Reynolds & Kearns, 2017)

- Many studies and instructors have reported that their entire course from lessons, activities, and assessments become more student focused and centered.
  - Increases student engagement and active learning opportunities.
- Instructor role transitions from emphasis on content delivery to facilitator of student development.
  - Increases creativity and variety of instructional methods utilized.
- Instructors can identify / establish the purpose of learning, activities, assessments before implementing them in the class.
  - Better organization of course content, inclusion of unifying themes, and connection of assessments and instruction to course goals.
- Assessments provide opportunities for students to demonstrate learning and receive feedback about their performance.
  - Increases monitoring of student progress.
  - Increases opportunities to provide feedback for students.
References


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