

How Can I Ensure My Lessons Are Logically Sequenced?

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HLP 12

*Systematically design instruction toward
a specific learning goal.*

INTRODUCTION

Lesson planning is part of our job as teachers. Making it systematic takes a bit more skill. Instead of just planning a day's lesson, systematic instruction carefully considers a logical sequence of skills and content: starting with students' current understanding, building on prior learning, and following a strategic pathway from simple to more complex. This sequence is well thought out and designed before lessons and learning activities are planned. Systematic instruction requires intentionality on the part of the teacher to carefully sequence concepts and plan instruction. Effective special education teachers create clear goals, carefully crafted instruction, and use data to make in-the-moment adjustments; these are hallmarks of systematic instruction. Teachers also activate prior knowledge and intentionally explain how current learning fits within the learning sequence, past and present, to help students understand its significance.

CHAPTER OBJECTIVES

- Define systematic instruction.
- Design a learning segment, or unit, using systematic instruction.
- Identify evidence-based practices that support implementation of systematic instruction.

KEY TERMS

- **Backward design/Understanding by Design (UbD):** A framework for designing instruction with the end goal in mind before developing lessons and teaching them.
- **Content Enhancement Routines:** Created by the University of Kansas Center for Research on Learning to make learning more organized, accessible, and understandable for students by teachers pre-planning key content to be learned.
- **KWL Chart:** A three-column table on which to record what is *Known* about a topic, *What* learning is wanted around that topic, and what has been *Learned* at the end of a lesson or unit about the topic.
- **Universal Design for Learning (UDL):** A framework for removing barriers to learning so all students can achieve at high rates and become independent, lifelong learners.

Planning instruction can be compared to a road map. A lesson plan details where students begin their learning journey; the path you, the teacher/tour guide, will take them on; and the final destination. All of these are instrumental in planning a well-organized lesson and must already be determined before the journey begins. No lesson should be considered an isolated event. It is connected to prior learning and points to future learning. Just as no destination on a map truly sits in the middle of nowhere, a road, or several, connects it to other towns or cities.

Effective special education teachers are deliberate in their lesson planning. They know their individual students so well that they can assess their current understanding of the content, their strengths and needs (not only related to the curriculum but also what motivates the student), and in other words determine the student's starting point of the journey. They then create favorable traveling conditions, meaning they establish a respectful learning environment that is organized and has predictable routines and procedures to ensure every student learns. They understand the content (or the final destination) in a way that they can break it apart to examine student "gaps" and determine the sequence of lessons needed. Next, they present the content in multiple ways to tap into students' background knowledge, understanding that multiple means of representation and expression are necessary for new learning. Teachers also assess student learning regularly and adjust instruction as needed to keep the student on the journey until they have mastered the skills and content. This chapter will focus on designing lessons that sequence the content in a way that today's learning builds on yesterday's and sets the stage for more complex learning to come.

WHAT IS HLP 12?

High-Leverage Practice (HLP) 12 targets planning, specifically, systematically designing instruction toward a specific learning goal. McLeskey and colleagues (2017) provide more detail for teachers to understand how to implement this HLP. Simply stated, the research team provides simple steps for teachers to consider for implementing this HLP. First, effective special education teachers teach foundational skills and concepts to provide a strong foundation for more complex learning. Second, they structure lessons with a logical progression, and make the connections between the lessons explicit,

evidenced in both planning and delivery. Third, they start a lesson by activating students' background knowledge and prior learning and show how the current lesson "fits" with previous ones and with future lessons. Fourth, effective teachers understand that planning involves designing meaningful learning goals, what is involved in reaching the goal, and understand they must allocate class time accordingly. Finally, teachers know that instruction must involve ongoing changes (e.g., pacing, examples) based on student performance.

The best way to achieve a systematically designed lesson is to start at the end. Backward design, also known as Understanding by Design (UbD; Wiggins & McTighe, 2005), has been used in education and lesson planning for decades (Childre et al., 2009). This research-based practice challenges the "traditional" method of starting with the text and curriculum guides to determine what to teach and instead looks at the desired end result (McTighe & Wiggins, 2012). Once you determine the specific goal you wish students to master and how you will measure their success, you assess their current level of achievement, determine what unique skills are missing, and then start the planning process (Bulgren et al., 2007). Finally, make sure to communicate a clear goal for students, plan for ongoing assessment, and then monitor progress.

How Is HLP 12 CONNECTED TO OTHER HLPs?

Delivering systematically designed instruction requires using multiple HLPs. As with any high-quality instruction, teachers use multiple practices together to achieve better outcomes. When you start planning, first determine your students' current level of understanding. To do that, use multiple sources of information to better understand not only students' needs, but also their strengths related to those needs (HLP 4). Analyzing these data will help you determine the specific goals you intend to reach, both for the full learning segment or unit (long-term) and individual lessons (short-term; HLP 11), as well as how to measure student success and determine what data to collect along the way to inform other instructional decisions (HLP 6).

As you start to plan instruction, think about the end result and students' current understanding, plan to build on student background knowledge, and connect to what you know they mastered from previous lessons (HLP 21). Next, analyze your resources and the materials available; decide if adapting or modifying those materials (HLP 13) is needed. Ask yourself, what supports will students need, and how will you scaffold those supports (HLP 15)? How can you actively engage (HLP 18) them for meaningful learning? How will technology (HLP 19) benefit student learning? Then, think about guiding them beyond just "earning" a grade and completing the unit; how can you get them to a level of understanding that they demonstrate this skill across time and settings (HLP 21)? All of this is achieved through explicit instruction (HLP 16) and providing positive and constructive feedback throughout the learning experience (HLP 22). Table 12-1 highlights the multiple HLPs needed to implement the planning methods discussed in this chapter.

WHAT IS SYSTEMATIC INSTRUCTION?

Systematic instruction is defined as, "instruction that is carefully and logically sequenced toward a specific goal" (Konrad et al., 2022, p. 172). Systematic instruction is an evidence-based practice (EBP) derived, in part, from applied behavior analysis principles to ensure students are trained in a new concept in a defined, observable, and measurable manner that leads to student mastery of skills (Walker et al., 2020). Systematic instruction can be successfully implemented in both full instructional units, such as how to add fractions or analyze the causes of Napoleon's war strategy in Europe, or in teaching discrete, specific skills, such as sight words or hand washing. Teachers develop systematic instruction through carefully constructed lesson goals, sequencing of skills and concepts, and

TABLE 12-1. ALIGNMENT OF HLPs AND RESOURCES FOR EVIDENCE-BASED PRACTICES

EBP SUPPORT WITH HLP 12	RELATED HLPs	RESOURCES
Backward design	11, 13, 15, 16, 17, 21, 22	https://www.cultofpedagogy.com/backward-design-basics/ https://youtu.be/4isSHf3SBuQ
Explicit instruction	4, 6, 13, 15, 16, 17, 18, 20, 22	https://www.understood.org/en/articles/what-is-explicit-instruction https://my.vanderbilt.edu/spedteacherresources/what-is-explicit-instruction/
Activate prior knowledge	4, 6, 17, 18, 22	https://www.youtube.com/watch?v=m9TykvvZHWg&t=7s https://strategiesforspecialinterventions.weebly.com/activating-prior-knowledge1.html
Content Enhancement Routines	4, 6, 18, 19, 22	https://kucl.ku.edu/sim-content-enhancement-routines https://education.wm.edu/centers/ttac/state/sim/contentenhancementroutines/index.php

helping students to organize their learning in a way that makes sense to them (Konrad et al., 2022). In other words, effective special education teachers must choose what to teach, when to teach it, and how to teach based on their students' needs.

WHY IS SYSTEMATIC INSTRUCTION IMPORTANT?

When clear instructional goals are made explicitly known by students, it takes the mystery out of instruction. When students know exactly what they are learning, why they are learning it, and how it is connected to other learning, they are more likely and more quickly able to “buy in” to instruction (Konrad et al., 2022). When teachers understand how each lesson is connected to others, as well as the overarching goal and standard, it is easier to plan and lead students to achieve independence (Wiggins & McTighe, 2005).

HOW DO I PLAN FOR SYSTEMATIC INSTRUCTION?

We all love a good template! Time and again we create or look for examples of templates to get us started with a specific task. Figure 12-1 provides a graphic to help you in planning high-quality systematic instruction. The graphic is based on Childre and colleagues (2009) four-step approach to designing quality instruction that takes a student from surface knowledge to deeper understanding.

- Step 1: Identify the learners.
- Step 2: Identify curricular priorities.
- Step 3: Design the assessment framework.
- Step 4: Create learning activities.

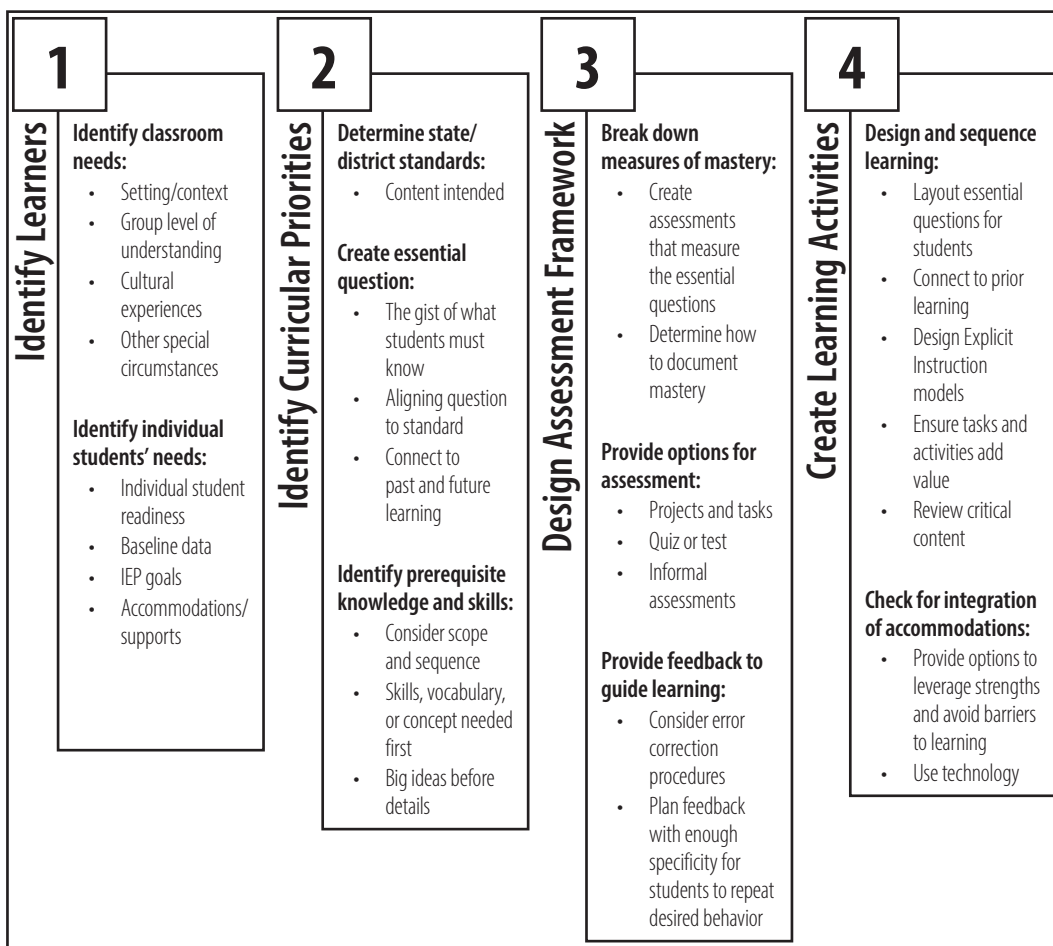


Figure 12-1. Four-step approach to designing systematic instruction. (Adapted from Childre, A., Sands, J. R., & Pope, S. T. [2009]. Backward design: Targeting depth of understanding for all learners. *TEACHING Exceptional Children*, 41[5], 6-14.)

This chapter builds upon their approach to help you systematically design instruction toward a specific learning goal.

Starting with the first step, you need to understand the needs of your students. Pull from all of those data sources (HLP 4) you have been collecting and think about your setting. Will this instruction take place in an inclusive classroom or maybe a resource room? How is the student or group progressing with universal screening measures? What is the cultural background of the students? What has been their exposure to the topic or skill you will be teaching? What do you know about your students' needs?

During the second step, identify the curricular priorities. What is the state or local standard this lesson is intended to address? As you examine the standard, consider what essential questions this standard was designed to ask. What is the gist of the standard? What are the prerequisite skills needed to access this standard? Make sure you separate those "big ideas" from the details. Think of this as the *need to know* vs. the *nice to know*. Details are fun, but almost trivial points that may not be as important once you dig deeper into the standards. You will also want to consider individualized education program (IEP) goals and objectives and consider the long-term vs. short-term goals (HLP 11) that need to be addressed.

Subject/Topic		Measurable Learning Goal for the Lesson: (What do students have to demonstrate to say they “learned” this goal?)		
CCSS/District Benchmark Standard being addressed		Related IEP Goal/Objective:		
Essential Question				
Baseline Data (how do you know students are ready for this lesson).				
Plan for Formative Assessment		Intervention/Evidence-based strategy to be used		
Student	Planned Support(s): <i>Planned supports can include the learning environment, instructional strategies, learning tasks, materials, prompts, and/or scaffolding</i>	Targeted Skill/Objective	<i>Opportunities with targeted skill/objective</i>	<i>Successful completion/occurrence</i>

Figure 12-2. Lesson plan template to ensure systematic instruction.

For the third step, design the assessment framework, consider the best method for assessing the learning objectives. What might best allow students to truly demonstrate their understanding in a meaningful way? How can you provide multiple assessments in different ways? What will informal assessment look like? What will formal assessment look like? When will these appear in the lesson sequence? How will you collect data from the assessments? How will you record the data? How will you analyze the data to make informed decisions? All these questions not only apply to systematic instruction but also to HLP 4 (using multiple sources of information to develop a comprehensive understanding of a student’s strengths and needs), HLP 5 (interpreting and communicating information with stakeholders to collaboratively design and implement educational programs), and HLP 6 (using student assessment data, analyzing instructional practices, and making necessary adjustments that improve student outcomes).

Many teachers find Step 4, create learning activities, to be the most fun. This is where we can design learning activities to meet the needs of our students and the learning goal while allowing our creative juices to flow. There are some questions to ask to help ensure quality instructional design of the learning activities. First, in line with Universal Design for Learning (UDL), identify any barriers to learning that might need to be addressed. These may likely be addressed in the student’s IEP, such as needing a reader for above grade-level material. What activities will best engage students in learning to effectively help them to master the content (HLP 18)? How can those activities be sequenced in the most beneficial way? How will students be grouped during instruction (HLP 17)? How will they actively respond to instruction to stay on task and learn (HLP 18)? What materials are needed to accomplish the activities?

Once these decisions are made, use a full lesson plan template to organize your lessons. We have provided a portion of a lesson plan template to help you ensure the questions from the first and second steps are completely answered (Figure 12-2). The template shared is for one lesson; remember that you are sequencing multiple lessons to create a systematic unit of instruction. Thus, you would

want to have an overarching topic and learning goal, then multiple subtopics (logically sequenced) and a meaningful learning objective for each. Once you are ready to plan an individual lesson, start with your topic and subject standard and align the students' IEP goals. For example, your topic may be creating fractions with common denominators, your state standard for fifth-grade math/fractions states; 5.NF.A.1: Add and subtract fractions with uncommon denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with common denominators. The students in this group have related IEP goals, specifically one student's IEP goal states, "Given a set of 10 single-step problems involving addition and subtraction of fractions and mixed numbers with uncommon denominators, the student will solve them with at least 80% accuracy." Consider what students must demonstrate to say they "learned" this goal. Write a measurable learning goal; we are personal fans of the formula: condition, behavior, and criteria for mastery. For instance, "Given 10 sets of 2 fractions, students will identify the common denominator for each set, with 80% accuracy." This goal tells us that for an "aligned assessment" activity you will want students to be successful on 8 out of 10 opportunities to find the common denominator with pairs of fractions. In the previous unit, students were adding and subtracting fractions with common denominators. In that lesson, we taught fractions must have common denominators to add or subtract them. Now, we will reinforce that and teach students to find common denominators before we move on to adding and subtracting uncommon denominators. Following today's learning, we point to the next lesson where students will be learning to convert the set of fractions to have common denominators. Explain that after they find the common denominator they will have to "change" the current fraction, or convert it to an equivalent fraction, another connection to previous learning. You could even make the connection that by the end of the unit or learning segment, the students will be completing multiple steps to add and subtract fractions with uncommon denominators.

Understanding by Design or Backward Design

It is difficult sometimes to think of EBPs involved with planning. However, there are some great ones out there to discuss. Actually, the framework for UbD or Backward design, given that name for starting with the end in mind, comes from research in and out of education. Wiggins and McTighe (2005) highlight the advancements of other fields (e.g., business, sociology) using Backward design, and share this idea as first proposed in education by Ralph Tyler in 1949. The goal of Backward design is the exact goal of systematic instruction at the planning stage, to first consider learning targets (the end goal) before planning the instruction to meet those goals.

Explicit Instruction

Archer and Hughes (2011) have propelled the EBPs of explicit instruction to such an extent that this instructional delivery approach is the recommended instructional delivery method for special education (McLeskey et al., 2017). Highlighting its importance, explicit instruction is also an HLP (HLP 16). When you think about the structured approach of I Do, We Do, You Do, it is easy to see how systematically designing instruction with the explicit instruction principles in mind creates an effective and efficient method for instructional delivery. For more examples of this and more detail on explicit instruction, please read Chapter 16.

Universal Design for Learning

The core components of systematic instruction, "clear instructional goals, logical sequencing of knowledge and skills, and teaching students to organize content" (McLeskey et al., 2017) are relevant in any setting and connect to UDL. Clear instructional goals are key to student engagement. Logical sequencing of knowledge and skills involves decisions on not only the sequence but then the way that knowledge or skill will be taught. Students must be able to actively express their learning and learn

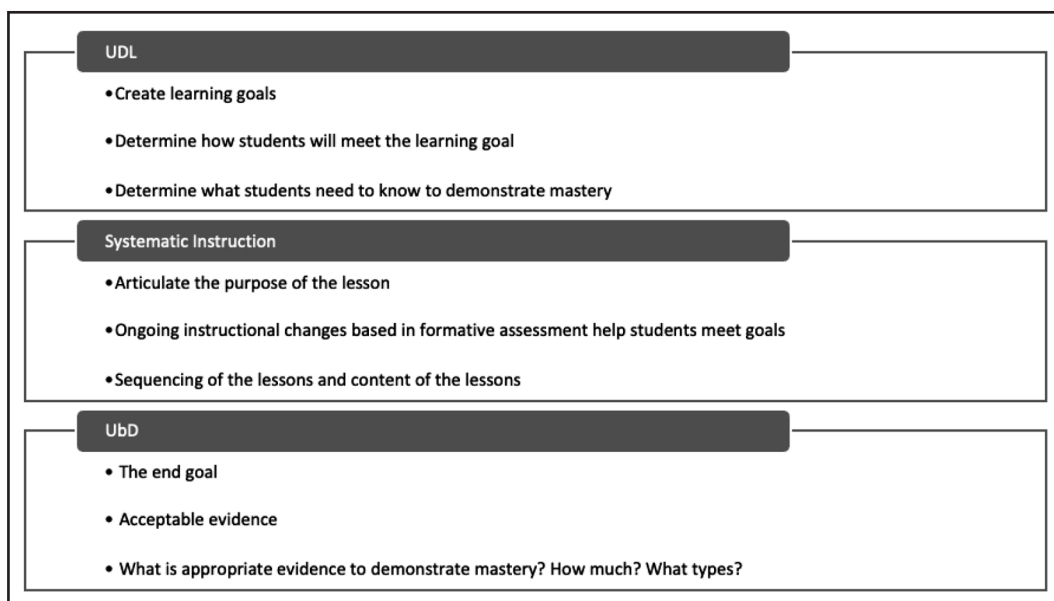


Figure 12-3. Relationship between UDL, systematic instruction, and UbD.

how to organize content, which is embedded in all three principles. Novak (2022) provides a list of prompts for teachers to consider when analyzing their lessons to be UDL-friendly. Several of these items are not only beneficial for ensuring UDL implementation but are essential for implementing systematic instruction and UbD. Figure 12-3 shows this relationship between UDL, systematic instruction, and UbD. Similar questions are asked, and similar decisions are made to ensure quality learning. Systematic instruction is also intertwined with explicit instruction (HLP 16) and multiple other HLPs, but also a myriad of EBPs, specifically UbD and UDL. When implemented in tandem, students learn at higher rates, and when students learn, teachers experience greater job satisfaction.

Content Enhancement Routines

The University of Kansas Center for Research on Learning has developed Content Enhancement Routines. These are “sets of inclusive teaching practices that help teachers organize and present critical information in such a way that students identify, organize, comprehend, and recall it” (University of Kansas Center for Research on Learning, 2022a). Content Enhancement Routines help teachers systematically plan instruction for the diverse needs of the students in their classrooms. These routines are based in research related to student active participation (HLP 18), student self-regulation of their learning (HLP 14), and making abstract concepts more concrete through explicit instruction (HLP 16), along with research on quality instructional design (Schumaker & Fisher, 2021).

Two Content Enhancement Routines, the Unit Organizer Routine and the Lesson Organizer Routine, are designed for teachers to clearly articulate the big picture of the unit and how an individual lesson fits into the unit (University of Kansas Center for Research on Learning, 2022b). Both the Unit Organizer Routine and the Lesson Organizer Routine include principles of systematic instruction. The Unit Organizer Routine includes framing the unit in a way that students know the big picture and can articulate it. This is in line with Konrad et al. (2022) who state that big ideas must be taught, as they are foundational to learning. The big idea allows students to have an anchor by which to hold subsequent information. The Unit Organizer Routine provides a means for students to learn how to organize their learning, which requires the teacher to carefully sequence instruction and teach the organizational method, which in the case of the Unit Organizer Routine is a graphic organizer completed with the teacher. Another key component of systematic instruction and of the

Unit Organizer Routine is making connections by exploring the relationship between background knowledge and new knowledge as well as relationships between and among concepts.

The Lesson Organizer Routine also includes explicitly stating and building a lesson around the lesson's main idea while relating new information to background knowledge. Graphic organizers used in this routine provide students with the opportunity to learn how to organize their learning, a key component of systematic instruction. In addition to these explicit connections to systematic instruction, the Lesson Organizer Routine also provides students with instruction on how their learning has been structured, how to identify the most important content, and to know the expectations for the lesson (University of Kansas Center for Research on Learning, 2022b). When teachers set clear goals in systematic instruction, they are helping students understand the expectations, which in turn will increase efficiency and students will effectively meet learning goals.

HOW CAN I ACTIVATE STUDENTS' PRIOR KNOWLEDGE AND CONNECT THE CONTENT FROM PREVIOUS LEARNING?

Once sequencing the lesson is completed, strategically planning for students to connect what they learn in a new unit with what they already know helps situate the old concepts around the new ones (Konrad et al., 2022). Many activities that teachers already know are helpful for activating prior knowledge, such as providing a prompt and doing a Think-Pair-Share activity or doing a quick write and directing students to write all they know about a topic for a short period of time (e.g., 1 to 2 minutes; Barrio et al., 2017). These activities create more meaningful learning experiences for students while stimulating their interest in the subject matter and increasing their motivation to master the content (IRIS Center, 2011). The UDL principle of representation includes a checkpoint that is “activate or supply background knowledge” because this idea of situating current learning with prior learning is vital for students to build a bridge from the old to the new to learn effectively and make the new learning accessible (CAST, 2022). The notion that stimulating prior knowledge also increases motivation taps into the engagement principle of UDL, which is the part of the brain that wants to know “why.” Making connections helps to answer the “why.”

There are multiple methods for tapping into prior knowledge. Only a few have been chosen for this chapter with Table 12-1 providing some further resources for ideas. Tapping into prior knowledge by reviewing vocabulary is one method for ensuring students have the appropriate foundation for new learning. There are many ways to review vocabulary. The activity “I have, who has?” involves the whole class in careful listening for the definition to the word they have on their card. This takes some preparation by preparing cards with a vocabulary word on one side and a definition of a different word on the other. The cards, when laid out in a sequence, become a series of words with definitions.

For the sake of this example, assume a group of three students. When reviewing previously learned government types to learn a new one, you decide to play this game with your students. The procedure is as follows:

1. Prepare index cards. On one card write *democracy* on the front and a definition on the back, “a political and economic doctrine that aims to replace private property and profit-based economy with public ownership and communal control of at least the major means of production (e.g., mines, mills, and factories) and the natural resources of a society” (Britannica, n.d.-a). On the next card write, *communism* on one side and “political system based upon the undivided sovereignty or rule of a single person. The term applies to states in which supreme authority is vested in the monarch, as an individual ruler who functions as the head of state and who achieves his or her position through heredity” (Britannica, n.d.-b) on the back. On the third card write *monarchy* and, on the back, “a form of government based on rule by the people with popular sovereignty as its defining feature (Oxford Reference, n.d.).

2. Pass out one index card to each of the three students.
3. The first student (does not matter who starts) reads the *definition* out loud, starting with, “Who has a political and economic doctrine that aims to replace private property and profit-based economy with public ownership and communal control of at least the major means of production (e.g., mines, mills, and factories) and the natural resources of a society?” The person who has *communism* will say, “I have *communism*” and proceed to read the definition on the other side of the card by saying, “Who has ‘political system based upon the undivided sovereignty or rule of a single person. The term applies to states in which supreme authority is vested in the monarch, as an individual ruler who functions as the head of state and who achieves his or her position through heredity?’” The student with *monarchy* will say, “I have *monarchy*. Who has ‘a form of government based on rule by the people with popular sovereignty as its defining feature?’” The first student will say, “I have *democracy*.” The game is over once the definition is read for the first student’s card.

In this example, reviewing *monarchy*, *democracy*, and *communism* lead into the next lesson on *totalitarianism*. Students can connect what they know about the first three governments to this new, fourth, government.

Another way to tap into prior knowledge is to complete a KWL (Know, Want to Know, and Learned). Students can complete a three-column chart of the first two columns (Know and Want to Know) before a new unit begins either as a whole class or individually. As the unit ends, they can complete the Learned column. The K column serves as tapping into prior knowledge while the Want to Know helps the teacher to input information into the unit that interests students and may not already be planned, while the L column serves as both a review for a summative assessment and as a formative assessment for the teacher to have an idea of what students have retained from the unit.

A third, but definitely not final, way to activate prior knowledge is to use questioning through a discussion or using response cards (Owiny et al., 2018). If questions require lengthy responses, discussion could be used to activate prior knowledge. For example, why did the United States of America get involved in the Vietnam War? Yet, if a question requires a discrete response, such as “What is the formula for calculating the area of a rectangle,” then response cards could be used in the form of a personal-size whiteboard or laminated construction paper for students to write their response with an erasable marker. Questioning with immediate responses helps the teacher to know what students remember about a prior topic to connect it to the next one.

HOW CAN I SEQUENCE LESSONS THAT BUILD ON EACH OTHER AND MAKE CONNECTIONS EXPLICIT?

Remember our “learning journey” analogy from the beginning of the chapter? Let’s go back to that picture for this answer. We need to see “learning” as a continual motion. We do not start at a random point. We start where we are, or in this case where the student is, and base our destination accordingly. We intentionally break up learning in a way that is logically sequenced and helps students see where they started, where they are, and where they are going. Critically and explicitly sequencing lessons can be achieved with using a template, such as the one provided in Figure 12-2. This helps you to consciously answer questions about your lesson planning and get away from the textbook or curriculum pacing guides. Of course, the scope and sequence of a curriculum can help, but you also want to base these decisions on student information.

Learning Goals

Establish a meaningful goal by asking “What do students have to demonstrate to say they *learned* this goal?” As stated earlier, think about what will be provided to the student (the condition), what you want the student to do (the behavior), and what will be considered an expectation for “learned” (the criteria for mastery). Here is a simple learning goal “formula”: When given *this something*, the student *will do this action*, with at least *this percentage* of accuracy.

Teaching Big Ideas Before Details

Just as you would teach a student to give the big idea of a story before they dig into the text to find the supporting details, you want to do the same thing with content and individual standards. When planning your systematic instruction, you need to learn what students already know about the big idea, clear up any misconceptions, and then fill in any “gaps” of learning, before moving on to the details. For example, if you were teaching a unit on the “forms of government,” teach the purpose of government first, then dig into the different forms, before starting to compare the forms of government and have students make opinion statements.

Real-Time Changes

This is where you will rely on the use of formative assessment data to make real-time changes. Read student affect; you know that “deer in headlights” look that tells you to stop. Check for understanding. Give more opportunities for practice before moving on. You do not want to keep teaching to complete the lesson plan or meet some district pacing guide. If you move on too quickly, you are not teaching; you are checking the boxes. Real teaching means real learning is happening. Anticipate student errors or misconceptions and plan for them. Plan for ongoing formative assessment. Use an exit ticket, and other in-class formative assessment, to reflect at the end of the day, or class period, to adjust tomorrow’s instruction so that learning continues to move forward.

Connect Current Learning With Future Learning

As stated earlier, learning does not happen in isolation. Make sure you connect the stops along the learning journey. At the opening of the lesson, you connect today’s learning to yesterday’s lesson. You state the purpose and relevance of this lesson and how it connects to the big picture of the content and to real life. Let’s face it, every student wants to know why they are learning this thing you want to teach them. Tell them at every opportunity. Make sure you have made clear connections to tomorrow’s learning and even the next unit, or the next course in the sequence, and of course share that with students too! End your lesson with how today’s learning informs future learning. Not only is making these connections relevant to systematic instruction, it is also a way to implement the engagement principle of UDL—making learning relevant to students helps them to be more fully engaged.

WHAT DOES HLP 12 LOOK LIKE IN A K-12 CLASSROOM?

Elementary Example

Ms. Baker is an elementary school special education teacher who is preparing a math unit related to the Common Core Math Standard 3.2.2.1—“Understand how to interpret number sentences involving multiplication and division of basic facts and unknowns.” Create real-world situations to represent number sentences. For example, the number sentence $8 \times m = 24$ could be represented by the question, “How much did each ticket to a play cost, if 8 tickets totaled \$24?” (National Governors

Association Center for Best Practices & Council of Chief State School Officers, 2010). She examines the students' current baseline data related to math computation (HLP 6). The students have learned the concept and understand that multiplication is repeated addition of the same number. They are still learning that division is the opposite of multiplication, but they do know the purpose of dividing is to see how many equal groups can be formed. However, they do not have quick recall and fluency of the computation skills. She thinks, "Okay, as they continue to learn, they can use a calculator as an accommodation (HLP 13). I need to make sure they truly understand the concepts of division, that multiplication and division are inverse operations, and what is meant by an unknown. Are they ready for variables right now? Maybe soon. For this unit I will focus on the academic language they will need to understand math and the different operational relationships." The best way to do this is plan the unit so that the lessons are systematically sequenced and logically built upon each other.

She begins the planning process with thinking about the end in mind: What do students need to demonstrate so they know they have learned the topic? She decides for this unit to focus on introducing inverse operations. She will start with vocabulary, and then talk about "inverse operations" with addition and subtraction, move on to multiplication and division, and maybe for a teaser check their readiness for "unknowns" by providing a lesson to demonstrate the relevance of inverse and unknowns. She develops the unit goal: "Given 10 mixed computation problems, students will write an inverse operation problem and solve both problems to check their work with 80% accuracy." Ms. Baker then sequences the lessons and determines each lesson's unique learning objective. She creates multiple practice opportunities (HLP 18) for each lesson, writes down some common errors she anticipates students will make to intentionally plan corrective feedback (HLP 22), designs formative assessments to measure student learning, and prepares to adjust her instruction as needed.

Secondary Example

Ms. Steinman is a high school special education teacher; she and the civics teacher, Ms. Lance, are co-planning a unit on the electoral process. Ms. Lance brings up the social studies standard for civics: "Critique the influence of intermediary institutions on government and policy, such as interest groups, political parties, the mass media, campaigns, caucuses, elections, PACs, and local, state, tribal, and international organizations." They also examine the Common Core Speaking and Listening Standards related to comprehension and collaboration: 11.9.2.2—"Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data" (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). Ms. Steinman shares that students in their co-taught civics class have IEP goals of comparing two sources of informational text to identify common themes and differences between sources. They think about how to break up this topic, "the electoral process for president," into separate lessons. Ms. Lance shares the major ideas that must be covered: candidates declare intentions, the primary/caucus process, delegates and conventions, campaigning, electoral college, and transition of power.

Once they agree upon the sequence, they must determine what the students already know (HLP 6). First, they review the text and curriculum materials used in the middle school civics class to see what students were explicitly taught. Next, they design a unit pre-test to assess what students retained from middle school or may already know about the content. They also design an assessment to understand students' ability to compare multiple sources of information and evaluate the source's credibility (HLPs 4 and 6). Based on these results they decide to explicitly teach (HLP 16) a lesson on evaluating the credibility of a source and another lesson on comparing multiple sources. These common core skills are embedded within their unit on the presidential electoral process, using the text students will use for the unit. Using the results of the content pre-assessment, they intentionally plan how much time to dedicate to each subtopic.

After this initial fact gathering, the two teachers now plan the lessons for this unit. They design their overarching goal: “Given two media sources (their textbook and an online article), students will be able to identify the U.S. Presidential electoral process with at least 80% accuracy.” They systematically sequence the lessons and determine each lesson’s unique learning objective, plan multiple practice opportunities (HLP 18), anticipate common errors to address, so they can plan corrective feedback (HLP 22), and prepare the daily formative assessment to measure student learning and adjust their instruction.

SUMMARY

On a first read, you may be feeling systematic instruction sounds like a lot of work. It is, but so is any effective instructional planning. You must know your content/skills so well you can break them apart and separate big idea from details, assess student learning to gauge where their understanding falls within the scope of the targeted content/skill, and then sequence lessons that build upon each other, while collecting data on student progress and understanding to make in-time changes to strengthen instruction and move student learning forward. An effective teacher starts with the end in mind. Just like any travel plan, you decide your destination, and then look at the current location to find the best route to get you there.

Effective teachers use multiple tools to complete the intricate task of designing instruction. They understand multiple EBPs such as Content Enhancement Routines from the University of Kansas, Unit Organizer Routine and the Lesson Organizer Routine, can help them organize their units and individual lessons. Teachers begin with thinking about the end result; UbD helps them think critically about what student mastery will look like and how ongoing assessment drives instructional choices along the way. Using the UDL framework, teachers remove barriers to learning, and set clear, understandable, and achievable goals while also telling students the purpose for learning the concepts or ideas in the lesson. Effective teachers build on students’ prior learning to create meaningful lessons and explicitly link today’s learning to tomorrow’s. So yes, it is time consuming, and can be a lot of work, but higher student achievement is worth all the time and effort.

CHAPTER REVIEW

1. Why is systematic instruction important?
2. Describe the four steps discussed in planning systematic instruction.
3. Choose an IEP goal and determine how to break that standard up in a way that promotes student learning.

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