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Unwrapping Academic Standards to Increase the Achievement of Students With Disabilities

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Abstract

Over the past 15 years, students with disabilities have been included in the general education environment at markedly higher rates; however, their achievement is not increasing at the same pace. One reason for this lack of increased achievement may be that academic standards lay the foundation for instruction in this environment, but standards fail to address the component academic skills needed for academic mastery. This article presents a method for analyzing the academic standards and then *unwrapping* them to their component skills using a lattice task analysis. After employing this analysis, educators will be able to systematically plan instruction in the component skills to ensure achievement and growth for all students in the classroom environment.

Keywords

intervention, academic, curriculum-based, standards, instruction, content area, access to general education, curriculum

Over the past 15 years, there has been a large increase in the number of students with disabilities who are being educated in the general education environment (Mastropieri, Scruggs, & Graetz, 2003; McLeskey, Landers, Williamson, & Hoppey, 2010; Scruggs, Mastropieri, & Okolo, 2008). At the elementary level, placement in the general education environment for a majority of the day has increased by 59%; at the secondary level, the rate of placement in general

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education has increased by more than 191% (McLeskey et al., 2010). With these less restrictive placements, however, academic achievement of students with disabilities has not increased drastically despite calls for higher standards and accountability measures to ensure high-quality academic instruction (Hamilton et al., 2009; Schroeder, Scott, Tolson, Huang, & Lee, 2007; Vannest et al., 2009).

Placement in the general education environment seems to be a response to the call for equity of education for all students (McLaughlin, 2010). Although historical discussions of equity focused on horizontal equity (e.g., similar staffing, resources, curricula), the No Child Left Behind (2002) legislation called for increased equity of outcomes for all students within the public school environment, including students with disabilities. This equity is called *vertical equity* (i.e., all students have the same outcomes on a standard assessment) and is measured through student mastery of a set of academic standards on an accountability assessment (McLaughlin, 2010).

McLaughlin (2010) argued that the main barrier to increased vertical equity for students with disabilities is that their educational needs are individualized. Each student with a disability comes to the classroom environment with a different set of skills, a different set of needs, and a unique instructional plan that affects the educational benefit received from instruction (McLaughlin, 2010). To provide vertical equity for students with disabilities, it is important for educators to understand the standards that are being targeted within the general education environment. Standards should be analyzed and dissected to identify the component and foundational skills needed to master the standard at grade level. Once content is analyzed, educators can develop assessments and strategies for determining students' levels of performance in relation to the academic standard. These assessment data provide information that can be used to differentiate instruction to support individualized student needs. With this knowledge, educators can meet the individualized needs of students with disabilities and track progress toward mastery of the standard with a focus on achieving vertical equity (Brunner et al., 2005; Halverson, 2010; Halverson, Prichett, & Watson, 2007; McLaughlin, 2010).

Recently, the focus of educational mastery has been on the Common Core State Standards (CCSS), a set of academic standards that have been adopted by 48 states (Phillips & Wong, 2010). These standards were designed to hold all students to high, rigorous standards with the aim of students being *college and career ready*. The CCSS are vertically aligned standards that are focused on mastery of each instructional objective at a high level of cognitive complexity (Powell, Fuchs, & Fuchs, 2013). Students with disabilities may struggle with accessing the content standard at grade level because they lack the foundational skills needed to interact with the material at a higher level of cognitive complexity (Graham & Harris, 2013; Haager & Vaughn, 2013; Powell et al., 2013). Therefore, it is important for special education teachers to understand the concepts addressed within the standard and how to support the achievement and access of students with disabilities to ensure grade-level mastery (Haager & Vaughn, 2013).

To understand and differentiate the instruction provided within the general education environment, educators should have a process for analyzing the components and requirements of the academic standard that students must master. Through this process of analysis, educators can create an *educational map* (i.e., including a systematic instructional plan and formative assessment technique) to plan instruction in component subskills of each academic skill. With this systematic instructional plan, educators can begin to (a) teach students at their current level, (b) track progress toward mastery, and (c) make instructional decisions based on student progress. The end goal of systematic instruction is mastery of the grade-level content. This article presents a method of unwrapping and analyzing the requirements of an academic content standard and then developing a systematic instructional plan for teaching the skills required for mastery of the standard. The information identified during this process provides educators with a concrete method for monitoring the academic achievement of all students in the general education environment, thereby ensuring that all students are making progress toward mastery and working toward increasing vertical equity of academic outcomes.

Unwrapping Academic Standards to Increase Student Achievement

Thorough analysis of academic standards can help increase the vertical equity achieved by students with disabilities through (a) targeting differentiated instruction that addresses students' individualized academic needs related to the standard and (b) tracking student mastery of the components of the standard, which can lead to increased overall mastery (McLaughlin, 2010). There are three main steps involved in analyzing grade-level academic standards: (a) unwrap the standard at grade level, (b) create a lattice task analysis of the unwrapped standard, and (c) develop the assessment techniques for determining student mastery.

Unwrap the Standard at Grade Level

Academic standards that are used to drive instruction tend to be broad statements of learning that should occur within a course of study (e.g., grade level, academic content class). Within academic standards, there are many concepts and skills built into one statement. This abundance of information makes it difficult to determine the individual lessons that should be taught. The academic standards also lack specificity of skills, making it difficult to measure student progress. The process of unwrapping the standards allows

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Common Core State Standard for English Language Arts, Reading Standards for Literature K-5
RSL.5.9: Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

Skills	Concepts
Compare Contrast	Genre Mysteries Adventure stories Approaches Themes Topics

Figure 1. Sample grade-level unwrapped standard with table of skills and concepts.

teachers to drill into these broad statements and determine the individual skills and concepts that must be mastered by students to ensure overall mastery of the academic content standard, akin to the task analysis of academic and behavioral skills (Lovitt, 2011).

Ainsworth (2003) suggested that the first step educators should take in unwrapping academic standards is to *code* the standard. That is, educators should write out the academic standard, circle any verbs, and underline any nouns. After the standard has been coded, educators should separate the verbs and nouns into two lists; the identified verbs become the skills that students must be able to do at the end of a period of instruction, and the nouns are the concepts that students must understand to show mastery of that standard. A coded fifth grade literacy standard from CCSS can be found in Figure 1.

This information allows educators to then plan a series of lessons that build students' abilities to discuss the concepts embedded within the standards as well as the academic skills that need to be displayed during assessment of student mastery. To show mastery of this academic standard, students would need to understand both story genres and authors' use of different genres to discuss specific themes and topics (i.e., the nouns from the standard). Students would need to be able to display the academic behavior of comparing and contrasting these different genres (i.e., the verb). Although the unwrapped standard provides a guide for identifying the critical ideas that must be addressed through instruction, it lacks a discussion of the component skills needed to develop grade-level mastery and the enrichment and enhancement skills for students who are achieving at higher levels. The skill of *compare and contrast* is complex, with many foundational components that must be understood but are not reflected within academic standards. Additional analysis of these skills is needed to provide targeted differentiated instruction to support student equity.

Creation of a Lattice Task Analysis

Smith, Smith, and Haring (1977) suggested that students with disabilities may not be able to master behaviors because of a deficit in foundational component skills directly related to the targeted behavior. They proposed that instructional objectives should be task analyzed, and then those steps should be further analyzed and broken into their component parts, creating a lattice of behaviors that are laid out in boxes and build on each other in a staircase fashion. Each of the component parts connects to another and leads to mastery of the overall behavior. Instructional programs should be designed based on assessment of student knowledge of the component parts. If the students were deficient in specific skills, instruction should begin in the lattice at that skill (Smith et al., 1977). The development of systematic instruction in component skills allows for the skills to be mastered in smaller pieces and also enriches and expands these skills as students move up the lattice and begin to make higher levels of connection (Smith et al., 1977).

Once component skills are identified, teachers can then plan targeted, systematic instruction for students with disabilities based on the sequence of component skills from the lattice. Explicit and systematic instruction in core academic areas for students with disabilities has been found to have a positive effect on the achievement of these students in academic subjects (Doabler et al., 2012; Lovitt, 2011; Miller, Stringfellow, Kaffar, Ferreira, & Mancl, 2011). Often, academic skills being taught in the general education curriculum are abstract and complex, making it difficult for students with disabilities to show progress or mastery of the skill because of a lack of foundational knowledge (Doabler et al., 2012). Special education teachers can improve student achievement with these complex skills through task analysis and direct teaching of the foundational skills needed for understanding and mastery (Watson, Gable, Gear, & Hughes, 2012).

The lattice task analysis can be applied to academic content standards to identify the foundational components needed to master the academic standard at grade level, as well as extend academic skills to higher levels of understanding for students who have mastered grade-level content. The lattice task analysis can then be used as an instructional planning tool and a framework for assessing student knowledge. To create a lattice task analysis for each

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standard, the skills and concepts identified during the grade-level unwrapping process are further analyzed to systematically determine the component skills that need to be learned, and the order in which they need to be learned, to show mastery of the academic content standard. To complete this analysis, a framework of instructional objectives (e.g., depths of knowledge [Webb, 2007]; Bloom's taxonomy [Seddon, 1978]) can be used to plan this systematic instruction.

Planning Systematic Instruction of Component Skills. Frameworks of instructional objectives are methods for categorizing the cognitive demands and level of complexity of instructional tasks and assessment items (Webb, 2007; Wyse & Viger, 2011). The structure of the framework is intended to sort the observable and measurable objectives of learning by their level of cognitive processing needed for students to complete the task or answer the assessment question. The framework has little to do with the difficulty of the task, but more about the amount of thinking that a student must engage in to come up with the answers. Instructional objectives at the lower end of the framework tend to require less cognitive processing while those at the higher end require more. Scaffolding instruction to support student mastery of the lower level objectives first, before moving into higher level objectives, ensures a systematic method to teach the foundational skills needed to think about the task at a higher level (Wyse & Viger, 2011). Mastery of the objective at a higher level tends to indicate that students understand the concept and are able to apply it in generalized areas.

When creating the lattice task analysis, educators can use a framework of instructional objectives. Depths of knowledge (DOK) levels are used in the process described, but the steps are similar for any framework of instructional objectives. There are four DOK levels that can be used to systematically plan instruction: (a) DOK 1 is the recall level, where students are expected to remember simple facts or ideas about a concept, (b) DOK 2 is the skill or concept level, where students are asked to make some level of connection between ideas and set up a problem or procedure, (c) DOK 3 is the strategic thinking level, where students are expected to plan, construct arguments, or justify a position, and complex cognitive thinking and connections begin at this level, and (d) DOK 4 is the extended thinking level, where students are expected to use complex cognitive processes and connections to create plans or arguments about a topic (Webb, 2007). The levels are designed to allow students to acquire knowledge at the lower levels, use knowledge at the middle levels, and then extend knowledge at the higher levels (Webb, 2007). It is important to note that the DOK levels represent frameworks of cognitive development related to specific academic skills. The verbs used to write instructional objectives may be similar to those represented within the DOK framework, but educators can develop their own verbs related to the cognitive skill being reflected by the DOK framework.

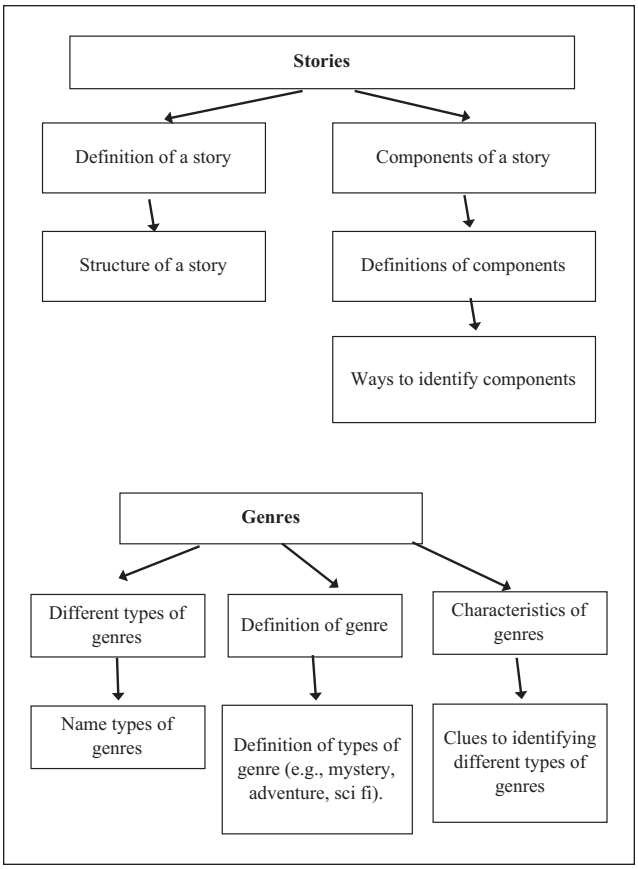

Figure 2. Sample concept tree.

Using the unwrapped standard as the basis for grade-level mastery, educators can complete further analysis of the standards to determine the needed component skills or knowledge. Starting with the concepts identified, educators can work to identify the things that students must know about the concepts to achieve the level of mastery needed for that particular standard. To develop conceptual understanding, there are four main things that students must know about specific concept: (a) what the concept is (e.g., name, definition), (b) what the concept looks like (e.g., characteristics of the concept, examples of the concept), (c) how to identify the concept through practical experience (e.g., what to look for when trying to identify a concept, comparisons of the concept in other situations), and (d) how the concept connects to other concepts the student already knows about. For example, thinking about the sample standard discussed previously and the concept of *genre*, component skills needed to understand this concept are definition of genre (what it is), that there are different types of genres (what it is), the definition of different types of genres (what it is), the characteristics of different types of genres (what it looks like), and details for identifying the type of genre used within a story (how to identify the concept). See Figure 2 for a sample concept tree for two of the concepts within the standard addressed previously.

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Table 1. Depth of Knowledge (DOK) Verb Levels Sorted by Cognitive Level.

Verb level	DOK 1	DOK 2	DOK 3	DOK 4
High	Calculate	Infer	Construct	Create
	Who, what, when, where, why	Collect and display	Assess	Critique
	Tabulate	Construct	Critique	Prove
	Illustrate	Modify	Formulate	
	Measure	Interpret	Explain phenomena in terms of concepts	
	Report	Estimate		
Medium	Arrange	Categorize	Investigate	Design
	Recite	Identify patterns	Hypothesize	Analyze
	Memorize	Distinguish	Revise	
	Draw	Summarize	Draw conclusions	
	Define	Graph	Use concepts to solve nonroutine problems	
	Recognize	Predict		
	List	Cause/effect		
	Label			
	Quote			
Low	Repeat	Organize	Differentiate	Apply concepts
	Recall	Use context clues	Compare	Connect
	State	Make observations	Cite	Synthesize
	Tell	Compare	evidence	
	Identify	Show	Develop a logical argument	
	Name	Classify		
	Use	Separate		
	Match	Relate		

To further analyze the component skills students need to master the standard, educators should identify the verb with the highest cognitive complexity written within the standard. See Table 1 for a list of DOK verbs (Webb, Alt, Ely, & Vesperman, 2005) sorted by cognitive complexity both within and across DOK levels. This is the skill that must be displayed to show mastery of the standard. For the standard discussed previously, the only verbs listed in the standard are *compare and contrast*. The DOK chart in Table 1 indicates that this skill is at the low level of DOK 3. With this target in mind, educators can work backward and forward through the DOK chart to systematically plan instructional verbs (using the cognitive complexity chart as a guide) that students would need to master to achieve *compare and contrast*, as well as the skills that students would need to master to develop a higher level of understanding of the content provided in the grade-level standard. A sample systematic plan based on the DOK chart is provided in Figure 3.

Creation of the Lattice Task Analysis. Once the deeper analysis of the concepts and skills addressed in the academic standard is complete, educators can then complete the lattice task analysis for that particular standard. A blank lattice task analysis is presented in Figure 4. There are four main parts to the lattice task analysis. In the upper left-hand corner, educators should list the coded academic standard that is being addressed in the lattice. Starting in the lower left-hand corner and moving toward the right for three columns are the skills that need to be mastered at the lower levels of cognitive complexity. Two columns are provided for DOK 1 skills, as there are often a higher number of component skills needed for mastery at the foundational level. The italicized objectives in the middle of the lattice task analysis are the target skill for mastery at each DOK level; if students can master the skill listed in this line, this indicates they have a base level of understanding of the targeted standard at that DOK. On the right-hand side of the lattice, two rows extend above the target line. These two columns represent the skills at higher levels of cognitive complexity and provide a plan for instruction for students who need enrichment or enhancement activities. Instruction would begin in the first box on the bottom left-hand corner of the lattice. As students mastered the component skills, instruction would move up the column and would increase in cognitive complexity. Once a column has been mastered, instruction would move toward the right. This process would continue until the student had mastered the targeted skill needed for mastery to understand the grade-level standard.

Educators should look at the concept tree they developed and the systematic plan for mastery of DOK objectives and begin to pair the concepts and skills together. This pairing creates a draft of instructional objectives that might be taught to students so that they begin to master the component skills. For example, the lowest level DOK verb identified in the systematic plan for mastery is *name* and the basic concept that must be understood to move toward mastery is *genre*. Therefore, the objective that would go into the first

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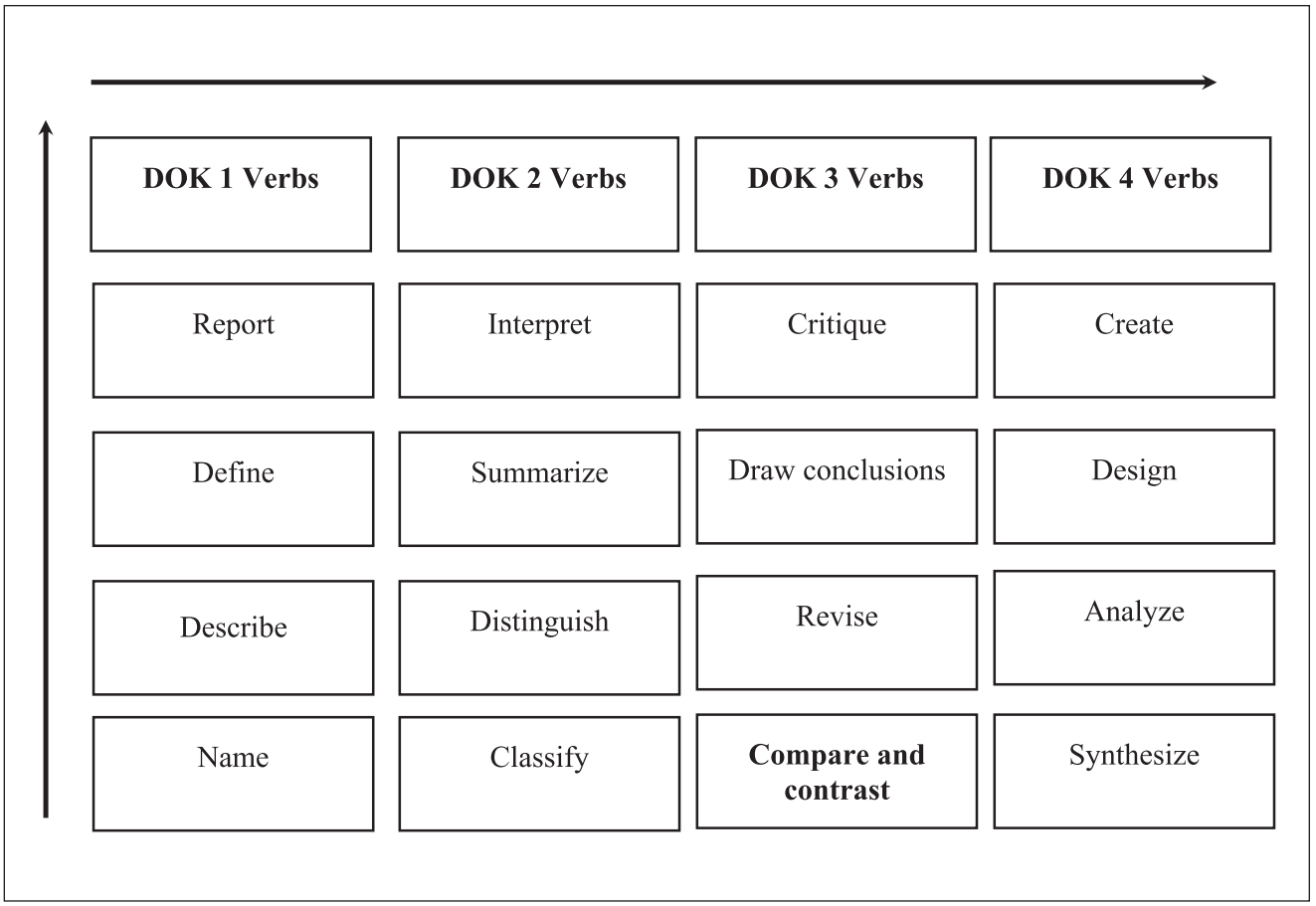

Figure 3. Sample depth of knowledge (DOK) verb learning map.

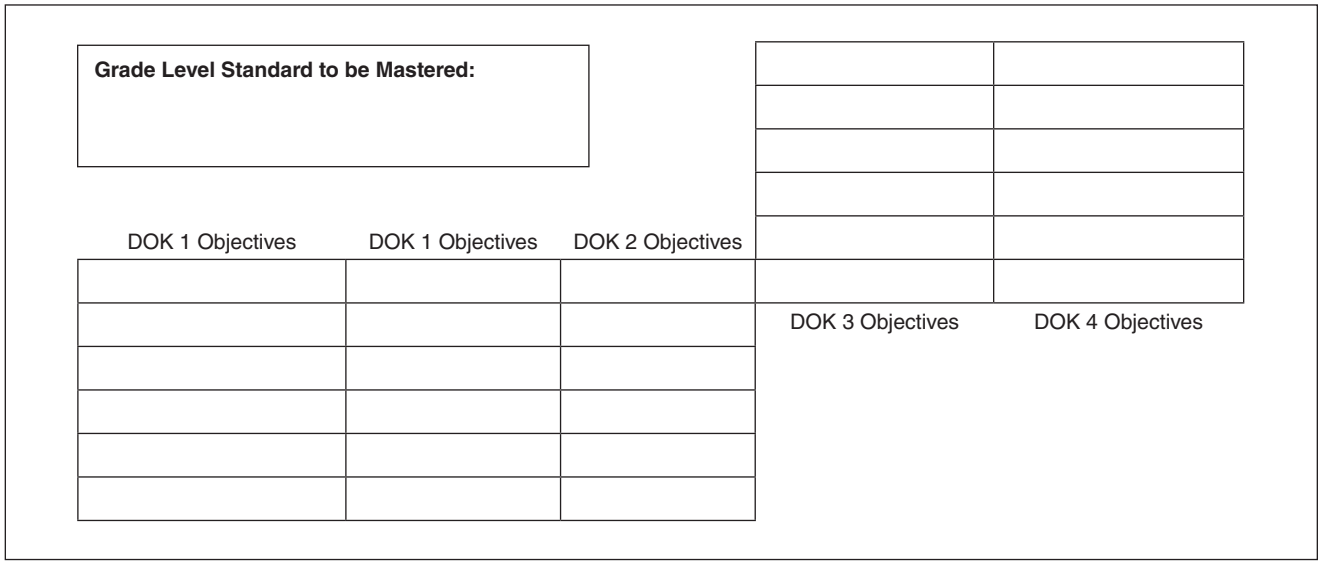

Figure 4. Blank lattice task analysis.
Source: Morgan, Higgins, Brown, and Norton (2012).

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Grade Level Standard to be Mastered: RSL.5.9: Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

DOK 1 Objectives	DOK 1 Objectives	DOK 2 Objectives	DOK 3 Objectives	DOK 4 Objectives
Report the different components of a story.	*Report the genre or approach used in a story.*	*Interpret the author's use of different genres or approaches on the theme/topic of the story.*	*Compare and contrast different genres/ approaches and their impact on theme/topic.*	*Synthesize the themes/ topics of two genres of stories.*
Define the different components of a story.	Describe ways to identify the specific genres and approaches, theme, and topic.	Summarize the theme or topic of a story.	Critique the author's use of a genre/approach for a specific theme.	Create two genres of stories using different. approaches but addressing the same theme or topic.
Describe the structure of a story.	Describe the characteristics of specific genres and approaches.	Distinguish between different genres/ approaches.	Draw conclusions about certain themes or topics where a specific genre or approach might be used.	Design a guide for making connections between genres and themes/topics.
Name the components of a story.	Define the genre and approach to a story, theme, and topic.	Classify the characteristics of different genres and approaches.	Revise a story to another genre, maintaining theme or topic.	Analyze several stories of different genres/ approaches and find a common theme.
Define a story.	Name different genres and approaches.			

Figure 5. Completed lattice task analysis for RSL.5.9.

box on the bottom left-hand corner of the lattice task analysis would be "Students will name different genres of stories." This process would continue until the entire lattice task analysis has been filled with instructional objectives (see Figure 5 for a sample lattice task analysis for CCSS RSL.5.9).

The completed lattice task analysis serves two main purposes. The first is a formative assessment tool. Each box of the lattice task analysis represents a component skill needed for overall mastery of the standard. Educators can plan formative assessment techniques to measure student mastery of each skill and use that data to show achievement growth and to plan instruction. Students can be pretested to determine their current level of mastery of the component skills related to the standard and can be assessed as they move throughout instruction to ensure that they are making adequate progress. The second is a systematic lesson-planning tool. The lattice task analysis provides a framework and sequence of instructional objectives that could be laid out in lesson plans to ensure student mastery of instructional objectives. In addition, data from a pretest would show the different levels of mastery that students have within the classroom environment related to the targeted standard. The lattice task analysis could be used as a differentiation tool to group students at similar levels of mastery. Instructional objectives for these groups could be differentiated so that individual student needs can be accounted for (i.e., addressing the vertical equity of all students in the classroom).

Develop the Mastery Assessments

Once educators have developed the lattice task analysis, the final stage in unwrapping the academic content standard is to develop the formative assessment techniques

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Table 2. Sample Essential Questions.

Depth of knowledge (DOK) level	Sample essential question
DOK 1	What are the different components of a story, and how do you identify them?
DOK 1	What is the genre of a story, and how would you determine a stories' genre?
DOK 2	What are the characteristics of specific genres of a story? How do you know the difference?
DOK 3	What are the similarities and differences between genres and stories and how they impact the theme? Why would an author use one genre instead of another?
DOK 4	What are the connections between two stories that have similar themes but different genres? What would you include to create different genres?

that can be used to track and determine student mastery of the academic content standard. Webb (2007) recommended that the curricula and the assessment be directly aligned within the DOK levels to ensure appropriate and relevant learning is being measured. There are two main assessment techniques that can be implemented to monitor student mastery of the component skills within the academic standard: (a) writing essential questions to determine student mastery of each DOK level and (b) developing mastery assessments to track student progress toward mastery throughout the lattice.

Writing Essential Questions. Essential questions are assessment techniques that challenge students to piece together a variety of component skills to develop an answer. These questions are given at the end of some period of instruction and challenge students to make connections between component skills to answer a question of higher cognitive complexity. Essential questions are simply worded, yet powerful in the amount of information that they can collect about student mastery of the cognitive processes at each DOK level. If students struggle answering the essential question, it may be an indicator that they are struggling with a component skill or are not piecing the information together in a way that allows them to understand the overall concept (Ainsworth, 2003).

Ainsworth (2003) recommended that teachers write essential questions using simple language so that students can truly show their content mastery without having to struggle with deciphering the language of the question. However, these questions should challenge students to think at a higher level of understanding and make connections between the instructional objectives that are covered within the unit of instruction (e.g., the end of a lesson, the end of a unit). Since it is difficult to ask a singular question that covers many different skills, Ainsworth (2003) suggested that educators write "1-2 punch questions" where the first part of the question asks students about a lower-level cognitive process within that DOK level and the second part of the question asks students about a higher-level cognitive process. Essential questions are generally open-ended, short-answer questions so that educators can monitor student understanding of the connections between component skills (Ainsworth, 2003).

Within the lattice task analysis, essential questions could be written for the component skills that are italicized in the middle to monitor the way that students are piecing together and making appropriate connections between each of the component skills. The first part of an essential question can be written based on a lower-level cognitive skill within that DOK level and be focused on the student's basic recall of foundational knowledge. The second part of an essential question can be based on a higher-level cognitive skill within that DOK level, asking students to apply or use information. For example, the essential question for the DOK 1 level of the lattice task analysis of the standard used as an example throughout this article might ask students, "What is the genre of a story, and how would you determine the genre of a story?" This essential question ensures that students can define the concept of a genre (i.e., a lower-level cognitive skill) and can discuss what they would look for to determine the genre (i.e., a higher-level cognitive skill). See Table 2 for additional examples of essential questions. Although essential questions would not point to specific areas that students might be struggling with, the answer to these questions would give a clear indication of whether or not learning is occurring and if the appropriate connections are being made.

Development of Mastery Assessments to Track Student Progress. The second assessment technique that should be developed as a part of the unwrapping process focuses on the component skills listed within the lattice task analysis. Using the lattice task analysis to drive the development of mastery assessments for each standard directly aligns the curriculum and the assessment technique. It also allows educators to track student progress following instruction and determine if students are learning the material. This is an important tool for educators, as rapid assessment of student mastery is an effective teaching technique, allowing teachers to tailor instruction to student learning (Yeh, 2010).

There are a few guidelines that educators can follow as they begin to determine tools and techniques for monitoring student progress. Webb (2007) recommended that any

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assessment of student learning should measure at least 50% of the instructional objectives that will be taught. Assessments containing a lower percentage do not provide a holistic understanding of student learning. With this rule in mind, each DOK level should have at least 2 to 3 questions reflected on the assessment, making the range of questions on the assessment 8 to 20, depending on the number of DOK 1 columns used and the number of instructional objectives developed using the systematic plan. Since these probes will be given frequently during instruction to monitor student progress, it is recommended that 10 to 12 questions be the maximum for these mastery assessments.

The DOK level of the instructional objectives should also be taken into consideration when developing these mastery assessments. Instructional objectives at the lower levels of the DOK chart can be written as multiple choice or matching questions, since those skills are related to the acquisition and use of knowledge. As the instructional objectives begin to move into the higher levels of the DOK chart, multiple-choice questions may still be an option, but it becomes more difficult to craft these types of questions. The DOK 3 and 4 levels may need to be written as short-answer or application questions, with a rubric for completion developed to track student progress and mastery. Regardless of the decision in construction of mastery assessments, it is important that each assessment have a similar format so that the structure does not affect the student mastery at each level.

Using the lattice task analysis as a guide, educators can identify the instructional objectives at each DOK level that are necessary for overall mastery of the academic standard and that provide information related to future mastery of the academic standard. Since these assessments should not be long, choosing instructional objectives that cover more than one component of the lattice provides the instructional information needed in fewer questions. For example, when looking at the completed lattice in Figure 5, instructors might create questions from the DOK 1 that ask students to name the components of a story, define the different components of a story, and then report the different components of a story. Although not every component skill is assessed, the ability to *name, define*, and *report* provides data on a student's understanding of the *recall, use*, and *extension* of knowledge related to the components of a story. If a student struggles with naming the components of the story, then he or she may also need additional instruction related to discussing what a story is in the first place. Looking at DOK 4, an educator might ask one question about how the student might write two stories of different genres that address the same theme and what might be similar or different between the two. This question focuses on a student's ability to create using the knowledge mastered within the standard and is multifaceted to determine the student's ability to make connections between all of the component skills. The focus of these assessments should be on the instruction provided within the classroom.

Once the mastery assessments are created, a timeline for assessment should be developed to track student progress. Standards mastery assessments should be given prior to instruction on a new standard to establish a baseline of student learning. This baseline measure should drive instruction within the classroom. Instruction should begin where students are lacking component knowledge or understanding. Following this initial assessment, mastery assessments can be given in line with the benchmarking guidelines being used to develop instructional plans. It is recommended that mastery assessments be administered three to five times throughout the course of instruction. These data can be entered into a spreadsheet or grade book and should be monitored closely to track student progress and make instructional decisions. Tracking these data also allows educators to clearly show student growth throughout a period of instruction. The targeted score on mastery assessments will differ by grade level, with the ultimate goal being that students master the cognitive objective listed in the standard.

Recommendations From a Pilot Implementation of the Unwrapping Process

This process of unwrapping academic content standards was piloted with a group of 16 graduate assistants in special education, secondary content-area teachers, and special education teachers through a professional development program. Informed consent was obtained from each participant and formative evaluation data and feedback was sought to make recommendations for implementation in school environments. Participants attended a 3-day professional development focused on the tools described in this article; throughout the professional development, general and special education teachers worked together on the application of skills. The first day of professional development focused on the creation of lattice task analyses of academic content standards. The second day focused on the creation of standards-based mastery assessments. The final day focused on differentiating instruction based on student assessment data. During each session, the participants worked to use each of the tools within their own content area and developed examples of unwrapped standards, assessments, and differentiated lesson plans.

Overall, the participants in the pilot felt that the unwrapping tools were useful in analyzing content area standards to differentiate instruction for all students in a classroom environment. When asked to rank whether or not the process of unwrapping was "clear and understood," participants said the process was easily understood. When asked whether or not they thought they would implement the process of unwrapping to differentiate instruction for students in their classroom environment, participants indicated they would be very likely to incorporate these tools.

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When giving feedback about the unwrapping process, participants indicated that unwrapping academic standards at this level made the academic standards meaningful for all students in their classroom environment. Special education teachers reported that they had a clear idea of how to make high level content accessible for students with disabilities, and general education teachers reported that they felt this process provided them with a clear direction for students at the lower and higher levels of their class. The teachers felt that the activity was practical and would easily help them monitor student growth and determine areas of the curricula where students may need additional support.

Several recommendations were made for educators engaging in this unwrapping process. The first was that although laborious at the beginning, the unwrapping process became much easier the more they engaged in the activity. In addition, the participants felt that the time commitment was front-loaded; that is, once the process of unwrapping is completed, edits may need to be made as they are used to guide instruction, but for the most part, the materials have been developed and do not need to be revisited. The participants also felt that the unwrapping process was best completed in a group, as professionals could give each other feedback about the order of the instructional objectives and discuss how they might systematically sequence the skills. Finally, the participants felt that this process would best be implemented with a combination of general education and special education teachers. The participants felt that this combination of skills benefited the entire process of unwrapping.

Conclusion

McLeskey et al. (2010) indicated that although the percentage of students with disabilities being placed for the majority of the day in the general education environment has increased dramatically, collecting data on their achievement in those environments has not been the focus. There is some indication, however, that the achievement of students with disabilities in these environments is not increasing because of the lack of content knowledge on behalf of the special education teacher and lack of understanding of differentiated instruction on behalf of the general education teacher (Hamilton et al., 2009; Schroeder et al., 2007; Vannest et al., 2009). A thorough understanding of the academic standards, the requirements for mastery, and the component skills needed to understand the concepts being measured in the general education environment is essential for ensuring vertical equity and increased student achievement.

The unwrapping process described in this article provides a tool for educators to analyze the academic content standards at a deep level, identify the component skills needed for mastery, and then develop a systematic plan for instruction to support the academic achievement of students with disabilities. This analysis of the academic standards provides educators with a deep understanding of the skills and concepts needed for achievement on assessments of student learning. It also provides them with a guide for how to plan instruction that is based on the needs of students in the classroom environment, for those at both lower and higher levels of academic achievement. Collaborative engagement with these tools can help educators work in a systematic and targeted way to ensure vertical equity for all learners in the classroom environment.

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