

# UNIVERSAL DESIGN FOR LEARNING AND THE COMMON CORE ELA STANDARDS: RIGOROUS READING AND WRITING INSTRUCTION FOR ALL

## A PCG Education White Paper

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*The Common Core State Standards (CCSS) for ELA & Literacy make explicit the knowledge and skills that students need to be college and career ready as readers, writers, researchers, presenters and thinkers. The challenge for teachers and administrators is how to support all students to work toward and meet more demanding academic expectations. The Universal Design for Learning (UDL) Framework conceptualizes a means of meeting this challenge. If UDL “habits of design” are incorporated into CCSS English Language Arts (ELA) & Literacy curriculum and instructional practices, we can collectively prepare students to be ready for the rigor of college and careers.*

While many grasp concepts quickly, others need more time, hands-on practice, or scaffolding to truly understand. The same is true for K-12 students. Although some schools do flexibly group students homogeneously for needs-based core instruction, and many teachers provide differentiated instruction in heterogeneous classrooms, many others still use “teach to the middle” whole group instruction. With the advent of the Common Core State Standards, and the expectation of college and career readiness for all, teaching to the middle is an approach that will ensure leaving even more students behind.

Given high expectations for students at many reading levels and with many needs, what are teachers and administrators to do? While there is much interest in “adaptive online learning,” most current computer-based programs are fairly inflexible. There is widespread rhetoric about the need for personalized learning

plans for every student. However, lack of 1:1 computer access, the social nature of learning, and the reality of one teacher to many students make it hard for many educators to imagine how to customize learning for each learner.

A basic premise of Universal Design for Learning (UDL) is that designing curriculum for the full range of learners is beneficial to all students, not just students with disabilities. UDL’s principles and related guidelines (CAST, 2011) support development of curriculum, instruction and assessment that is flexible and embeds options for presenting material, engaging students in learning, and supporting multiple ways for students to demonstrate learning. UDL principles are commonly used to implement interventions within the context of Response to Instruction and Intervention (RtI<sup>2</sup>) or Multiple Tiers of Student Support (MTSS). We maintain, however, that it is the power of the UDL framework to impact instruction in the regular classroom that holds great promise. This is because use of UDL when delivering instruction in all content areas widens access to learning, making it possible for many more students to be successful with the core curriculum.

In this PCG Education White Paper,<sup>1</sup> the authors 1) describe the Universal Design for Learning framework; 2) provide examples of CCSS-ELA & Literacy-aligned UDL instructional practices and supports that reduce barriers to learning; and 3) recommend that educators incorporate habits of universal design when designing and facilitating CCSS-ELA & Literacy aligned learning experiences.

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<sup>1</sup> While this PCG Education White Paper focuses on incorporating UDL supports in CCSS-ELA & Literacy-aligned instructional practices, UDL tools and resources are useful in all content areas.

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## WHY UNIVERSAL DESIGN FOR LEARNING?

American students are increasingly diverse in terms of their language, cultural and economic backgrounds, and learning challenges. Yet the curriculum and instruction which students experience often attempts to make “one size fit all.” Students who are able to learn but who are not successful in the traditional classroom for a variety of reasons often contend with an instructional setting that puts unnecessary barriers to learning in their way. For example, by insisting on one way to demonstrate learning (e.g., through a diorama), students with spatial or motor disabilities are at an immediate disadvantage. This is also the case when instead of providing choices for how to take notes to plan an essay (e.g., use of an outline or use of a concept map), only one of these methods is approved, limiting the highest level of success to those who think or learn best in that particular way. Insistence on completion of work using a specific process is common in American classrooms: students are told they have to work independently; are required to work in groups; must write before drawing a picture; must write before discussing a topic with others; must read before seeing the film. All of these examples can have the unforeseen consequence of actually limiting or undermining student success.

The premise of Universal Design for Learning maintains that, to truly address student diversity, it makes sense to modify the “disabled” curriculum (CAST, 2011) so it is effective in reducing barriers to learning for a wide range of students. A “disabled” curriculum is any set of materials or instructional methods that mix up the means (methods) of learning with the ends (goals) of instruction. For example, if the goal is to understand how to develop a good argument, many students may benefit from working in pairs to listen to and analyze persuasive speeches first or instead of analyzing challenging pieces of written text on their own. When the means are confused with the ends, it can be difficult or impossible for students who are capable of developing proficiency as learners to learn or demonstrate what they know because the required instructional parameters are too narrow. UDL provides options to “repair” or design curriculum or instruction so that many more learners have access to and can be successful at learning content that is more rigorous. As importantly, UDL increases the options students have to demonstrate what they know and are able to do.

In this age of the Common Core, with more rigorous expectations for all students to become proficient readers, writers, thinkers and presenters, we contend that Universal Design for Learning (UDL) provides a critical framework for creating quality Common Core State Standards-aligned instruction. When well designed and implemented, aligned instruction that is built on the foundation of UDL principles can provide access to the core curriculum for most students. Therefore, it is important that school and district leaders understand and can support teachers in implementing UDL to accomplish this important goal.

## WHAT IS UDL?

The Higher Education Opportunity Act (2008) defines UDL as a scientifically valid framework for guiding educational practice that

- Provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and
- Reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient (CAST, 2011, p.6).

Based upon advances in neuroscience during the past decade, the UDL framework (CAST, 2009) incorporates three principles of instructional design:

1. Provide multiple means of representation (the “what” of learning: recognition networks in the brain that are responsible for gathering facts and categorizing information);
2. Provide multiple means of action and expression (the “how” of learning: strategic networks of the brain that are responsible for planning and performing tasks); and,
3. Provide multiple means of engagement (the “why” of learning: affective networks in the brain that are responsible for engagement and motivation in learning)

These three principles for curriculum development and lesson delivery are grounded in flexibility. Educators are encouraged to build flexibility into the design and delivery of instruction, including the use of multiple methods, materials, and assessments, when teaching and flexibility in how they will sustain student interest, effort, and persistence. By incorporating this flexibility into instructional design and practice, educators can support many more students to develop the knowledge and skills necessary for success as learners, workers, and citizens.

Supporting all students sounds good in theory, but many educators cannot envision what it actually looks like in practice or what types of technology, tools, and instructional strategies are available to help implement the three UDL principles as a part of teaching and learning. The UDL framework goes much further than just outlining broad principles.<sup>2</sup> The framework specifies how educators can implement alternative means of representation, expression, and engagement. These specifics are described in a set of nine guidelines and provide a range of evidence-based scaffolding supports and technologies that teachers can use to implement the three principles. The UDL Framework assumes that teachers will use the gradual release of responsibility approach, where teachers provide direct instruction and model (provide access) and have students practice in pairs or small groups with guidance (guided practice and support) before reading and writing on their own with feedback (independent

<sup>2</sup>These effective scaffolding practices were identified through a meta-analysis of over 1000 scientific studies of supports that contribute to improvements in student success. For a description of the research base underpinning the nine guidelines and associated checkpoints, see <http://www.udlcenter.org/research/researchevidence/>

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practice). Gradual release of responsibility is well researched as an instructional approach, but many teachers find it challenging to implement in classrooms where there are students who exhibit a wide range of abilities and experience as readers and writers.

Table 1 provides examples<sup>3</sup> of the types of UDL supports and technologies that teachers can use when delivering Common Core-aligned ELA & Literacy instruction.<sup>4</sup> Using the framework of CAST's UDL modules,<sup>5</sup> the table below presents examples<sup>6</sup> of technologies and instructional strategies that can be invaluable when implementing CCSS-aligned ELA & Literacy instruction in diverse classrooms where the goal is to help students become independent learners.

Regular use of these technologies and strategies can be a game changer, providing many more students the opportunity to successfully engage with the rigorous content that the CCSS insist will put them on the path to college, careers, and active citizenship. By using these options and tools to reduce barriers to learning, teachers can support students to access grade appropriate complex text, comprehend and communicate ideas effectively, and sustain motivation and stamina for engagement in reading, writing, and spoken language.

Table 1. UDL Resources for Learning Framework with Supports for ELA/Literacy Curriculum and Instruction

Multiple Means of Representation	Multiple Means of Expression	Multiple Means of Engagement
<b>GOAL: Provide Access</b>		
<ul style="list-style-type: none"> <li>Offer ways of customizing the display of information</li> </ul> <p><a href="http://bookbuilder.cast.org">http://bookbuilder.cast.org</a> Book Builder allows for flexibility in display and coaching characteristics that help students think about the text.</p>	<ul style="list-style-type: none"> <li>Vary the methods for response and navigation</li> </ul> <p><a href="http://www.cameramouse.org">www.cameramouse.org</a> Along with a web camera, Camera Mouse allows the user hands-free access to control the computer mouse with only head movement.</p>	<ul style="list-style-type: none"> <li>Optimize individual choice and autonomy</li> </ul> <p><a href="http://bookbuilder.cast.org">http://bookbuilder.cast.org</a> Book Builder allows for authoring and choice in creating text and choosing images.</p>
<ul style="list-style-type: none"> <li>Offer alternatives for auditory information</li> </ul> <p><a href="http://www.popplet.com">www.popplet.com</a> Provides a place to add notes, outlines, and photographs or to create visual graphic organizers to enhance understanding. Students can also record auditory information using a smartphone.</p>	<ul style="list-style-type: none"> <li>Optimize access to tools and assistive technologies</li> </ul> <p><a href="http://www.techmatrix.org">www.techmatrix.org</a> An online, searchable database provided through the Center for Implementing Technology in Education of over 300 educational and assistive technology tools, resources, and technologies to support all students.</p>	<ul style="list-style-type: none"> <li>Optimize relevance, value, and authenticity</li> </ul> <p><a href="http://www.fluency21.com/planner.html">www.fluency21.com/planner.html</a> Provides teachers a free unit planning resource that aligns with the 21st century fluencies (solution, creativity, collaboration, media, and information fluencies). Real world problems are used to encourage students to create products as solutions.</p>
<ul style="list-style-type: none"> <li>Offer alternatives for visual information</li> </ul> <p><a href="http://www.naturalreaders.com">www.naturalreaders.com</a> Provides audio files of text through free text reader so students can listen to digital copies of text.</p>		<ul style="list-style-type: none"> <li>Minimize threats and distractions</li> </ul> <p><a href="http://www.stickpickapp.blogspot.com/">www.stickpickapp.blogspot.com/</a> Stick Pick provides teachers with a unit planning resource that aligns with the 21st century fluencies (solution, creativity, collaboration, media, and information fluencies). Real world problems are used to encourage students to create products as solutions.</p>

<sup>3</sup>The National Center for Universal Design for Learning provides additional UDL resources at <http://www.udlcenter.org/implementation/examples>. The University of South Florida's Technology Integration Matrix provides additional technology-based UDL resources at <http://fcit.usf.edu/matrix/matrix.php>

<sup>4</sup>Table 1 represents the UDL Guidelines – Version 2.0. Available from <http://www.udlcenter.org/>

<sup>5</sup>Available from CAST Online Modules <http://udlonline.cast.org/guidelines>

<sup>6</sup>Most of the websites used as examples make their information available at little or no cost to teachers and K-12 students.

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Multiple Means of Representation	Multiple Means of Expression	Multiple Means of Engagement
<b>Goal: Provide Guided Practice and Support</b>		
<ul style="list-style-type: none"> <li>Clarify vocabulary and symbols <a href="http://www.blachan.com/shahi/">www.blachan.com/shahi/</a> An online dictionary that provides definitions with Flickr, Google, and Yahoo images. <a href="http://www.visualthesaurus.com">www.visualthesaurus.com</a> Students can create a visual web of related words.</li> </ul>	<ul style="list-style-type: none"> <li>Use multiple media for communication <a href="http://www.voicethread.com">www.voicethread.com</a> Web-based application that allows students to share and create multimedia presentations.</li> </ul>	<ul style="list-style-type: none"> <li>Heighten salience of goals and objectives <a href="http://www.studygs.net/shared/mgmt.htm">www.studygs.net/shared/mgmt.htm</a> Provides students with tools to manage their time and achieve their goals.</li> </ul>
<ul style="list-style-type: none"> <li>Clarify syntax and structure <a href="http://www.sophia.org/paper-writing-transitions-and-topic-sentence-tutorial">www.sophia.org/paper-writing-transitions-and-topic-sentence-tutorial</a> Provides support through a tutorial on transition words/phrases. Instructional Strategy-Analytic Graphic Organizer, Instructional Strategy-Word Sorts. <a href="http://www.thinkquiry.com">www.thinkquiry.com</a> (Thinkquiry Toolkit 1)</li> </ul>	<ul style="list-style-type: none"> <li>Use multiple tools for construction and composition <a href="http://www.studygs.net/shared/writing/index.htm">www.studygs.net/shared/writing/index.htm</a> Encourages students to improve their skills through taking a self-assessment and completing an independent learning module on writing. <a href="http://www.paperrater.com/">www.paperrater.com/</a> Students check their grammar and spelling and get alerts for opportunities to improve their writing.</li> </ul>	<ul style="list-style-type: none"> <li>Vary demands and resources to optimize challenge <a href="http://udleditions.cast.org/index.html">http:// udleditions.cast.org/index.html</a> Provides students leveled supports and an online Texthelp Toolbar to provide flexibility when reading digital media.</li> </ul>
<ul style="list-style-type: none"> <li>Support text, reading <a href="http://www.openlibrary.org/">www.openlibrary.org/</a> and <a href="http://www.naturalreaders.com/download.php">www.naturalreaders.com/download.php</a> Has over one million free viewable eBooks that the user can personalize, Used in conjunction with Natural Reader, the free text can be read aloud in a voice of the reader's choice.</li> </ul>	<ul style="list-style-type: none"> <li>Build fluencies with graduated levels of support for practice and performance Instructional Strategy: Coding. <a href="http://cst.cast.org/cst/auth-login">http://cst.cast.org/cst/auth-login</a> Read, collect and understand information and develop web-based lesson with learning strategies and vocabulary supports.</li> </ul>	<ul style="list-style-type: none"> <li>Foster collaboration and communication <a href="http://www.padlet.com">www.padlet.com</a> Web based "pads" to post questions or a vocabulary terms. <a href="http://www.edmodo.com">www.edmodo.com</a> Allows for teacher-student communication and collaboration and provides a platform for posting assignments, reminders, etc.</li> </ul>
<ul style="list-style-type: none"> <li>Promote understanding across languages <a href="http://www.etype.com">www.etype.com</a> Free downloadable software that includes a translator and dictionary between languages and includes a word predictor; is compatible with Word and the web.</li> </ul>	<ul style="list-style-type: none"> <li>Instructional Strategy: Coding/ Comprehension Monitoring. <a href="http://www.thinkquiry.com">www.thinkquiry.com</a> (Thinkquiry Toolkit 1)</li> </ul>	<ul style="list-style-type: none"> <li>Increase mastery-oriented feedback <a href="http://www.edutopia.org/blog/how-to-plan-instruction-video-game-model-judy-willis-md">www.edutopia.org/blog/how-to-plan-instruction-video-game-model-judy-willis-md</a> and <a href="http://www.onlinecharttool.com/">www.onlinecharttool.com/</a> Encourage student perseverance and provide meaningful feedback by following the steps in this Edutopia article and using the Zygomatic's online chart tool.</li> </ul>
<ul style="list-style-type: none"> <li>Illustrate through multiple media <a href="http://www.tagxedo.com/">www.tagxedo.com/</a> Allows the creator to choose shapes to display text and font.</li> </ul>		
<b>Goal: Support Independent Practice</b>		
<ul style="list-style-type: none"> <li>Activate or supply background knowledge <a href="http://www.wdl.org/en/">www.wdl.org/en/</a> The World Digital Library provides a searchable database, in several languages, of primary materials from countries and cultures worldwide.</li> </ul>	<ul style="list-style-type: none"> <li>Guide appropriate goal-setting <a href="http://www.goalforit.com/">www.goalforit.com/</a> Supports students to create and monitor daily goals and habits. Create charts for class routines or behavior monitoring with customized visual reinforcements and rewards.</li> </ul>	<ul style="list-style-type: none"> <li>Promote expectations and beliefs that optimize motivation <a href="http://www.goalmigo.com/">www.goalmigo.com/</a> Students can create and track personal goals and have the option of sharing with peers or a wider community. Students can update friends or a larger community as they make progress toward and complete their goals.</li> </ul>
<ul style="list-style-type: none"> <li>Highlight patterns, critical features, big ideas and relationships Instructional Strategy- Question-Answer-Relationship (QAR) <a href="http://www.thinkquiry.com">www.thinkquiry.com</a> (Thinkquiry Toolkit 1).</li> </ul>	<ul style="list-style-type: none"> <li>Support planning and strategy development <a href="https://support.google.com/calendar/answer/2465776?hl=en">https://support.google.com/calendar/answer/2465776?hl=en</a> Encourage students to use Google calendar to track assignments.</li> </ul>	

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Multiple Means of Representation	Multiple Means of Expression	Multiple Means of Engagement
<ul style="list-style-type: none"> <li>• <i>Guide information processing, visualization and manipulation</i></li> </ul> <p><a href="http://www.exploratree.org.uk/">www.exploratree.org.uk/</a> Encourages students to choose, develop, and organize visual models of their learning to scaffold their learning.</p>	<ul style="list-style-type: none"> <li>• <i>Facilitate managing information and resources</i></li> </ul> <p><a href="http://www.evernote.com">www.evernote.com</a> Encourages students to save ideas, tasks, projects, files, and research through this free software. All materials stay organized together and are available anywhere students log into their account.</p>	<ul style="list-style-type: none"> <li>• <i>Promote expectations and beliefs that optimize motivation</i></li> </ul> <p><a href="http://www.goalmigo.com/">www.goalmigo.com/</a> Students can create and track personal goals and have the option of sharing with peers or a wider community. Students can update friends or a larger community as they make progress toward and complete their goals.</p>
<ul style="list-style-type: none"> <li>• <i>Maximize transfer and generalization</i></li> </ul> <p><a href="https://www.diigo.com/">https://www.diigo.com/</a> Students can use this resource to collect and organize documents, highlight or add sticky notes, bookmarks, and images.</p>	<ul style="list-style-type: none"> <li>• <i>Enhance capacity for monitoring progress</i></li> </ul> <p><a href="http://www.voki.com/">www.voki.com/</a> Encourages students to listen to themselves orally read and self-evaluate through avatars.</p>	<ul style="list-style-type: none"> <li>• <i>Facilitate personal coping skills and strategies</i></li> </ul> <p><a href="http://www.facesoflearning.net">www.facesoflearning.net</a> Encourages students to take ownership to discover how they best learn and take steps toward improving their learning skills.</p>

Copyright CAST 2012. Adapted with permission. CAST (2011). Universal Design for Learning Guidelines, version 2.0. Wakefield, MA: Author. <http://www.udlcenter.org/aboutudl/udlguidelines>. The example technologies and scaffolding strategies are embedded in CAST's UDL Framework. The contents of this CAST Framework are adapted by Public Consulting Group.

## CONNECTING COMMON CORE-ALIGNED INSTRUCTION SHIFTS TO UDL SUPPORTS

Improving student proficiency on the CCSS-ELA & Literacy standards will require not only shifts in instruction, but also tailoring instructional practices to the needs of a wide range of students. An important consideration when designing and delivering CCSS-ELA & Literacy-aligned instruction is to ensure that there are multiple options for helping students achieve the standards. When designing and selecting learning supports to match task demands and learning needs and interests, it is useful to apply the Goldilocks rule of "not too little, not too much, but just right" level of support. The point of UDL is to provide wide access to the curriculum, not to make the work easier for students. For years, we have done just that by simplifying the curriculum and lowering expectations

for students who struggle as readers or learners. UDL operates on the premise that expectations for all students should remain high but that students may need assistance to access the curriculum, which can be provided using the UDL framework's principles and guidelines. Teachers and administrators should be aware of effective scaffolding technologies and practices that are consistent with principles of best literacy practices. With this in mind, the next section describes instructional practices that both incorporate UDL supports and align with the instructional shifts of the CCSS-ELA & Literacy. Figure 1 addresses three important instructional shifts. The successful integration of CCSS-ELA & Literacy aligned instruction and UDL practices enables a wide range of learners to access text and participate fully in core reading, writing, and vocabulary instruction.

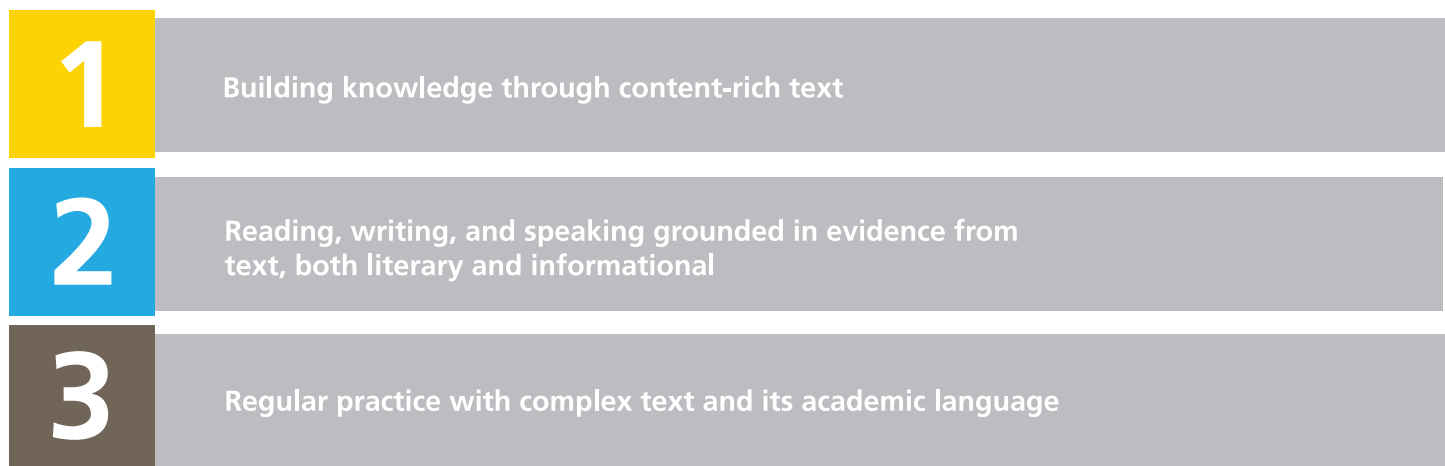


Figure 1. Three Instructional Shifts to Address CCSS ELA & Literacy

## 1 INSTRUCTIONAL SHIFT 1: BUILDING KNOWLEDGE THROUGH CONTENT-RICH TEXT

The Common Core State Standards for ELA & Literacy emphasize the routine use of complex grade-level text – text that is worth reading and rereading. As students engage in reading complex text, they deepen their understanding of important ideas and information, building upon the foundation of prior knowledge. To ensure that complex texts can be read and understood by students with varying abilities as readers, teachers will want to provide both instructional support and alternative text presentations.

**Supporting comprehension.** Teachers will need to scaffold instruction to ensure that students can achieve the expectation of reading complex text fluently and with comprehension. This is important because the CCSS-ELA & Literacy expect that students will acquire deep knowledge through text. The ability to choose the right strategies and supports hinges on the teacher's understanding of the demands of the curriculum and the needs of the students. For example, the same text can be easy or hard, depending on what students are asked to do, students' background knowledge and students' experience as readers and thinkers with comparable texts. Reading a challenging poem after viewing a documentary on the same topic is very different than reading the poem "cold." Viewing the documentary will help students build content knowledge related to the topic of the poem. Summarizing a piece of text is different than comparing it with other texts about the same topic or theme. A text with difficult technical vocabulary related to agriculture may be tougher for students in the city to access than for their peers who live on farms.

If the text presents new content that contributes to complexity, reading the text aloud, providing definitions for key vocabulary and supplying side bar contextual information can be very helpful when students encounter a difficult text for the first time. Providing students with a simpler version of the text, such as a synopsis or an introduction to the topic written at an easier text level, can also be helpful prior to having students read the more difficult version. Pictures and film excerpts can assist students to visualize scene, context, or characters and can make the text less threatening and more approachable. Working with struggling readers ahead of when others read the text for the first time can build confidence and help students develop initial familiarity with the text, so they are able to delve into the text more productively when asked to do so in a larger group. Use of graphical aids, including analytic graphic organizers, helps students to conceptualize the content found within a complex text.

**Providing alternative text presentations.** Providing multiple options in the display of information and making auditory and visual alternatives available helps to make appropriately complex text accessible to a wider range of students (see Table 1). Figure 2 shows some basic areas where teachers can use technology to increase student access to complex text.

<b>Ways to customize the display of information</b>
<ul style="list-style-type: none"><li>• Vary the size and font of text, images, graphs, and tables.</li><li>• Vary the volume or rate of speech and sound.</li><li>• Adjust the speed and timing of videos.</li></ul>
<b>Alternatives for auditory information</b>
<ul style="list-style-type: none"><li>• Provide written transcripts for auditory clips.</li><li>• Use visual or tactile equivalents for sound effects.</li><li>• Use text equivalents as captions or automated speech-to-text (voice recognition).</li></ul>
<b>Alternatives for visual information</b>
<ul style="list-style-type: none"><li>• Provide descriptions of all images, video, and animations.</li><li>• Provide auditory cues for key concepts in video information.</li></ul>

**Figure 2. Using technology to increase access to complex text**

If teachers think about how to provide this scaffolding and text presentation options, more students will be able to be successful in meeting the standard of reading complex text independently and proficiently.

### Instructional Practice Example 1: Using Analytic Graphic Organizers

Analytic graphic organizers enable students to explore characteristics, relationships, or effects of complex topics by organizing information visually into charts, diagrams, and graphs. Analytic organizers support students' organization of ideas and construction of meaning from text (Meltzer & Jackson, 2011, p. 115).

Organizers are best used during and after reading to

- Provide a visual way to analyze linked information and ideas;
- Organize information for note-taking, recall, and preparation for written response to text;
- Show specific relationships in cause-effect diagrams, time sequence, or compare-contrast charts;
- Synthesize information within a single text or across multiple texts; and
- Convey understanding of information and concepts to resolve misconceptions.

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Because they can make complex text accessible to more students, analytic graphic organizers can be considered UDL tools. It is important that analytic graphic organizers be used as tools to support reading, writing, and thinking, and not as worksheets or an end in themselves. Graphic organizers are inherently UDL aligned because they offer a means of visually and graphically representing textual information. They also facilitate higher-level critical thinking skills as students categorize information and engage in analysis by comparing/contrasting, determining cause

and effect, etc. Using analytic organizers, students develop deep and complex schema as they integrate new knowledge with existing knowledge. Alternative visual representations provide an opportunity to think about content in interconnected ways. Analytic graphic organizers can be dynamic tools when students use them to update new knowledge. Such organizers also work well to solidify knowledge gained from the text after close reading of a text. Table 2 shows UDL supports aligned to Instructional Shift 1: Build knowledge through content-rich text.

Table 2. Instructional Shift 1	
Instructional Shift	CCSS-ELA & Literacy Aligned Instructional Practices and UDL Supports
Build knowledge through content-rich text	Instructional Practices
	<ul style="list-style-type: none"> <li>• Use strategies such as Analytic Graphic Organizers to build knowledge from content-rich text.</li> <li>• Select content-rich, multi-cultural texts to build background knowledge of grade appropriate content related to social studies, science, literature, and other content areas.</li> <li>• Activate background knowledge relative to the content of texts.</li> <li>• Create or use leveled sets of text to support diverse student reading levels and to promote engagement and independent reading.</li> <li>• Use multiple texts/sources to create text-to-text connections.</li> <li>• Teach structures of different genres and the literacy skills associated with becoming a skilled reader of each genre.</li> </ul>
	UDL Supports
	<ul style="list-style-type: none"> <li>• Incorporate alternative means of presenting the text format including alternative visual and auditory representation of text to increase accessibility for a wider range of students (e.g., UDL Book Builder).</li> <li>• Use multiple options for representing text content including alternative representations of words and pictures using audio.</li> <li>• Select appropriately complex texts that fall within the grade bands as measured by tools such as the Lexile Framework for Reading. Use visual organizers to help students draw connections between ideas in a text.</li> </ul>

## 2 INSTRUCTIONAL SHIFT 2: READING, WRITING, AND SPEAKING GROUNDED IN EVIDENCE FROM TEXT

Perhaps the most significant shift in the CCSS-ELA & Literacy is its emphasis on the use of textual evidence to deepen comprehension. In a shift from reliance on “text to self” interpretation of meaning, the CCSS-ELA & Literacy require that students read closely, developing comprehension based on evidence from the text. The shift also directs students to write frequently in response to reading, using sources to substantiate claims and point of view (Alberti, 2012/2013; Boyles, 2012). The shift applies to both literary and informational text. The following two instructional practices align with Instructional Shift 2.

### Instructional practice example 2: coding/ comprehension monitoring for close reading of content-rich text

*Close, analytic reading stresses engaging with a text of sufficient complexity directly and examining meaning thoroughly and methodically, encouraging students to read and reread deliberately. (PARCC, 2012, p.7).*

In addition to text-dependent questions that guide students in identifying textual evidence to support reading comprehension (Boyles, 2012, Student Achievement Partners, 2012), an important close reading instructional practice is annotation or coding of the text, coupled with multiple rereading of the same piece of text for a variety of purposes. The Coding/

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Comprehension Monitoring strategy provides students with multiple options to monitor comprehension and gain meta-cognitive awareness of their reading of the text. Coding/Comprehension Monitoring supports rereading and annotation, which in turn helps readers to build knowledge from content rich text and text-based discussion with peers (Meltzer & Jackson, 2011, p. 98). To engage students in repeated, close readings, begin with short, appropriately complex, content-rich texts that are worth rereading. The instructional sequence below is one way to use Coding/Comprehension Monitoring in conjunction with close reading.

- **First reading:** Students read using three codes to mark up a nonfiction text<sup>7</sup> on a topic of study as follows: (!) = I know/agree with this, (X) = I disagree with this, (?) = I am confused by this part. Students also underline words they do not know. Students who need assistance accessing the text can use an audio file of an e-book with earphones or listen to the teacher read the text aloud. Then, with a partner, students compare their coding and share meanings of words or suppositions about what is meant in places where one or both partners were confused.
- **Second reading:** Students then read the text by themselves stopping to mark up the text, jot down notes, or audio-record their thoughts after they read. After reading the piece twice, students rate their understanding on a scale from one to ten.
- **Third reading:** Students meet with a partner or small group to read through and discuss the piece, their understanding, and any questions they still have. After the third reading, students write or audio-record their understanding of the text changed from the first to third reading, noting questions or problems they still have with it.

In a diverse core classroom, however, many students are reluctant to reread and annotate text, especially those who dislike reading or who have weak reading skills. Using Coding/Comprehension Monitoring along with UDL supports increases the utility of the annotation practice for a wide range of students. UDL supports include:

- Text-to-speech readers such as Natural Reader (<http://www.naturalreader.com/>) to engage reluctant readers in repeated re-readings and annotation.
- Posters or bookmarks with the annotation codes and their meanings provide visual representation of associated cues for additional support.
- Computer-based stickies when reading text online (<http://listings.com/about>, <http://www.wallwisher.com>)
- Asking students to create their own set of symbols to support increasing their attention when they read.

## Instructional practice example 3: quote, question, response

Teachers can facilitate close reading by posing text-dependent questions and asking students to respond, verbally or in writing, citing textual evidence in support of their point of view. For many students, including struggling readers, it may be helpful to engage in multimodal expression rather than limiting response to speaking or writing. For example, some teachers ask students to create a literary analysis hypertext, using PowerPoint or Keynote as their composing tool. They choose an important quote, scene, or text segment and hyperlink from words, phrases, or sentences to screens that express their understanding using images, sound, and text. This requires close reading of the original text as well as reframing of the text through multimodal expression. This works especially well with expository text, where students may choose text quotes and/or graphics to explicate through hyperlinked annotations. These kinds of multimodal compositions can be presented in class and debriefed so students are thinking about how meaning is constructed in the original text and in students' various multimodal analyses of the text.

An instructional strategy that teachers can use to support close reading and writing with evidence is Quote, Question, Response (QQR) (Meltzer, Conley, & Perks, 2014 forthcoming). QQR helps students learn from text as they respond to specific excerpts in the text. After looking further in the text, or in additional multimedia resources, students construct a response based on sources. QQR can be used with both narrative and expository text. Because it is intended as an analytic frame rather than a summarizing strategy, QQR is most successful when used with text that requires analysis or inference. QQR is an effective literacy practice during or after reading to support close reading, academic language, and "short burst" writing from sources.

Reluctant readers and writers may be hesitant to engage in QQR. Blending QQR with research-based UDL practices makes text-based analysis accessible to a wider range of learners. UDL supports could include

- Use of an online template for keyboarding.
- Side-by-side glossary for defining unique domain-specific terms.
- Modeling of writing strategies coupled with a writing reference guide

<sup>7</sup>Other codes might be used with a literary text. Codes should help students read the text closely and focus on aspects of the texts that the teacher feels is important for students to consider.



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Table 3 describes instructional practices and UDL supports that can be used to address Instructional Shift 2: Reading, writing and speaking grounded in evidence from text

Table 3. Instructional Shift 2	
Instructional Shift	CCSS-ELA & Literacy-Aligned Instructional Practices and UDL Supports
Reading, writing, and speaking grounded in evidence	Instructional Practices
	<ul style="list-style-type: none"> <li>• Use of text-dependent questions.</li> <li>• Coding and Comprehension Monitoring to annotate text for specific information.</li> <li>• Use of Think-Alouds for modeling.</li> <li>• Use of Paired/Shared Reading, and other collaborative routines to support small group discussion of text content.</li> <li>• Use the Quote, Question, Response (QQR) strategy to engage students in the use of text evidence to support point of view.</li> </ul>
	UDL Supports
	<ul style="list-style-type: none"> <li>• UDL Guidelines for options for comprehension <a href="http://www.udlcenter.org/implementation/examples">http://www.udlcenter.org/implementation/examples</a>.</li> <li>• Combine reading text, listening and viewing video, and discussion to enhance comprehension and engagement for all learners.</li> <li>• Listen to the text through teacher reading aloud, small group or in pairs.</li> <li>• Scaffold support for readers by indicating sections or paragraphs where evidence can be found.</li> <li>• Ask below-level readers to read a simpler piece about the same content and then participate in the conversation about the content.</li> <li>• Use Text to Speech recognition to support close reading.</li> <li>• UDL Guidelines for multiple options for expression and communication in writing <a href="http://www.udlcenter.org/implementation/examples">http://www.udlcenter.org/implementation/examples</a>.</li> <li>• Use assistive technology to support writing.</li> <li>• Web-based forums to post writing responses; use web-based multimedia tools to create a variety of texts including use of music, photos, and video clips, and web-based writing frames.</li> </ul>

### 3 INSTRUCTIONAL SHIFT 3: REGULAR PRACTICE WITH COMPLEX TEXT AND ITS ACADEMIC LANGUAGE

Academic and domain-specific vocabulary and language structures comprise a significant element of text complexity. Limited vocabulary is commonly associated with students' difficulties in reading comprehension of grade appropriate complex text (Adams, 2011). The reality is that many students need direct instruction in defining academic and domain-specific words as they read. This is why many text-dependent questions need to focus on helping students make meaning of unfamiliar words and phrases in the context of the text they are reading.

Academic language includes words that appear frequently across different types of context. It also includes domain-specific, unique

words that appear infrequently, but are central to the author's meaning, and parts of speech such as similes and metaphors that contribute to text complexity. Domain-specific words often require direct instruction to define words within text context because these are words that frequently carry the meaning of complex text (Hiebert, 2012a, b; Nagy & Townsend, 2012). It is also important to explicitly teach and have students use in their writing and speaking the technical vocabulary that students need to understand to acquire deep content knowledge. Students need to encounter these words in multiple circumstances if they are to develop strong associations with related words, thus contributing to deeper content knowledge.

One example of a useful CCSS-ELA & Literacy-aligned instructional practice for developing academic language is the Word Sort strategy.

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## Instructional Practice Example 4: Word Sorts

Word Sorts (Meltzer, Jackson, 2011) support students to work collaboratively to expand their vocabularies by comparing, contrasting, and classifying words. This enables students to develop a robust understanding of terms and their relationships since discussing and classifying are two effective ways to help students learn and remember academic vocabulary. In “closed sorts,” the teacher provides lists of words that students cluster together in meaningful ways to specify main ideas or determine conceptual relationships. In “open sorts,” students sort the words by characteristics and relationships and then label the categories.

Word Sorts are most effective when used as a collaboration routine emanating from close reading of text. Word Sorts can be used after answering text-dependent questions that focus on the meaning of vocabulary in context. This gives students the opportunity to discuss ways that the targeted words are related. Many reluctant readers and writers benefit from multiple opportunities to engage with words.

Table 4 describes aligned instructional practices and UDL supports that teachers can use to enact Instructional Shift 3: Regular practice with complex text and its academic vocabulary.

Instructional Shift	CCSS-ELA & Literacy Aligned Instructional Practices and UDL Supports
Regular practice with complex text and its academic language	Instructional Practices
	<ul style="list-style-type: none"> <li>Use text-dependent questions focused on academic vocabulary and language structures to highlight the author’s choice of language. Coding and Comprehension Monitoring to annotate text for specific information.</li> <li>Use instructional strategies such as Word Sorts, Triple Entry Vocabulary Journal, and Frayer Model to engage students in collaborative study of vocabulary.</li> </ul>
	UDL Supports
	<ul style="list-style-type: none"> <li>UDL Guidelines for language, mathematical expressions, and symbols: <a href="http://www.udlcenter.org/implementation/examples">http://www.udlcenter.org/implementation/examples</a>.</li> <li>UDL Guidelines for expression and communication – multimedia for communication, building fluencies: <a href="http://www.udlcenter.org/implementation/examples">http://www.udlcenter.org/implementation/examples</a></li> <li>Use Word Mapping Tools.</li> <li>Create a digital version of a vocabulary field trip.</li> <li>Play online vocabulary games.</li> <li>Provide e-book readers.</li> </ul>

## HABITS OF LESSON/UNIT DESIGN

A basic premise of UDL is that designing curriculum for the full range of learners is beneficial to all students, not just students with disabilities. That is because a UDL lesson specifically examines potential barriers to access and makes a plan up front to address these as an integrated part of the lesson design. When planning how to integrate instructional strategies, UDL scaffolds and technologies into lessons, teachers can ask the question: How have I provided multiple learning pathways so that all students are able to engage with, and learn from the lesson?

As discussed earlier in this white paper, there are three principles of UDL that teachers can provide as part of each lesson/unit of study: multiple means of representation, multiple means for action and expression, and multiple means for engagement. For students who struggle to read, write, and engage in spoken language, as well as those who thrive in academic settings, the availability of multiple options for learning increases the likelihood of success.

In some cases, UDL principles that are important for struggling readers are also important for advanced readers. For example, all readers, regardless of level, engage more actively if they have a choice of subtopic to study, mode (print or electronic) to utilize or types of reading materials when the goal is to develop specialized knowledge on a given topic. The research is clear that increasing engagement improves learning. Similarly, the research supports the efficacy of providing information in multiple formats when supporting learning, regardless of “level” of student.

**Designing new lessons/units.** It is important to consider how to separate the goals of a lesson from the means of achieving it. Teachers need to incorporate flexibility in the presentation of content, demonstration of learning, and engagement with learning. For example, the learning goal may be “making inferences.” To make that learning widely accessible to all students, the materials used to achieve that goal may need to be differentiated. That is, some students may need to practice making inferences first using a simpler text or a piece of art. Then, when the concept of how

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to make inferences is clear, students can apply their new skill to more complex text. By varying the means, the goal of learning how to make inferences can still be attained, and many more students may actually accomplish it.

**Reviewing and retrofitting lessons/units.** It is often the case, however, that a lesson or unit plan has been planned without specifically thinking about UDL at all. In these cases, it is very possible to “retrofit” the lesson or unit to enable wider access to the content by thinking through the ways that UDL can be used to enhance the lesson/unit. This creates an opportunity to think through UDL starting with material a teacher already has in hand, often a powerful way to start embedding UDL concepts into habits of design going forward.

This can have the effect of taking a lesson or unit “from good to great.” That is, a lesson that worked well for many students might be infused with UDL approaches, so almost all students can be successful in learning the targeted content.

Table 5 provides teachers with a template for developing the habits of lesson and unit design needed to successfully create or retrofit CCSS-ELA & Literacy lessons with aligned UDL supports. The template provides a set of guiding questions when designing lessons aligned with the UDL Framework. Responding to these questions will help ensure that learning goals are accessible and within reach of the broadest range of learners.

Table 5 UDL Habits of Design

When designing or reviewing lessons/units, ask these questions...

- Are the means of students achieving or responding separated from the goals of the lesson?
- Have I eliminated or addressed potential barriers raised by materials, methods, and/or assessments to make the content accessible to more students?
- Does the lesson include multiple means of representing the concepts or new ideas?
- Does the lesson include multiple ways for students to express understanding?
- Does the lesson include multiple ways to engage students in their own learning?

## CONCLUDING THOUGHTS

We believe that UDL is the key to effective lesson and unit design that can support student success in meeting the CCSS-ELA & Literacy. UDL is predicated on the idea that providing multiple options for learning increases the likelihood that all students will achieve academic success. Without a framework such as the one provided by UDL, teachers do not have ready access to how to design lessons that maximize the engagement and achievement of their students. Using the UDL framework to design and retrofit CCSS-ELA & Literacy-aligned lessons and units is a path that could lead to highly productive teaching and learning.

As an instructional leader who is charged with ensuring that all students are successful, here are some ideas you will want to think about as you encourage the use of UDL in all classrooms: How can I ensure that teachers know about these options? How will teacher professional development and coaching be provided? How can policy (e.g., teacher evaluation; expectations for core instruction) and structures (e.g., lesson planning templates; peer coaching) be implemented to support use of these instructional strategies, scaffolds and technologies to provide more students with access to the core curriculum? Resources such as those listed in the bibliography can provide more information and ideas. But instructional leaders need to provide the impetus and inspiration for teachers to regularly use instructional strategies and UDL supports into their implementation of the CCSS-ELA & Literacy Instructional Shifts.

The CCSS-ELA & Literacy is a grand opportunity for our students – and the educators who work with them. Making the most of this opportunity may depend on quality implementation of UDL lessons, whether designed from scratch or refurbished using UDL principles, in K-12 classrooms throughout the country. We encourage you to make an action plan to realize this vision of teaching and learning in your schools.

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## EXAMPLES OF UDL TECHNOLOGY SUPPORTS

Book Builder. <http://bookbuilder.cast.org>

Microsoft Photostory 3.

<http://microsoft-photo-story.en.softonic.com/>

UDL Book Editions

[http://udleditions.cast.org/INTRO,all\\_about\\_coyotes.html](http://udleditions.cast.org/INTRO,all_about_coyotes.html)

## INSTRUCTIONAL VIDEOS FOR CCSS-ELA ALIGNED INSTRUCTION WITH UDL SUPPORTS

Brainstorming of Text Comprehension. <https://www.teachingchannel.org/videos/analyzing-text-brainstorming>

Whole Group Discussion. "Text Talk" <https://www.teachingchannel.org/videos/analyzing-text-as-a-group>

Independent Writing with Evidence. <https://www.teachingchannel.org/videos/analyzing-text-writing>

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She is coauthor of *Taking Action on Adolescent Literacy: An Implementation Guide for School Leaders* (ASCD, 2007), *Meeting the Challenge of Adolescent Literacy* (IRA, 2009), and *Taking the Lead on Adolescent Literacy: Action Steps for School-Wide Success* (Corwin, 2010); author of *Adolescent Literacy Resources: Linking Research and Practice* (Education Alliance, 2002); and coeditor of *Thinkquiry Toolkit 1: Strategies for Improving Reading Comprehension and Vocabulary Development Across the Content Areas* (PCG, 2011).

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and Learning, Revenue Management Services, Special Education/At-Risk Student Data Management, Strategic Planning and School Improvement.

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