

AT & App Supports for Writing in the Common Core Standards: For Students with Complex Disabilities

Common Core Standards for Writing

“Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas, and they should address increasingly demanding content and sources. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades. The expected growth in student writing ability is reflected both in the standards themselves and in the collection of annotated student writing samples.”

<http://www.corestandards.org/ELA-Literacy/W/introduction>

Common Core State Standards (CCSS) English/Language Arts – Literacy

- Writing divided into 4 Areas
- Skills represented at each K-12 grade levels
 - 1) Text Types and Purposes,
 - 2) Production and Distribution of Writing,
 - 3) Research to Build and Present Knowledge, and
 - 4) Range of Writing.

Common Core Essential Elements (CCEE)

“The Common Core Essential Elements (CCEE) are specific statements of the content and skills that are linked to the Common Core State Standards (CCSS) grade level specific expectations for students with significant cognitive disabilities.”

Dynamic Learning Maps

“A learning map is a network of sequenced learning targets. ... Dynamic learning maps not only show the relationships between skills but also show multiple learning pathways. Instead of assuming that all children learn a skill in the same way, allowing for multiple pathways recognizes that there are alternate ways to learn the same skill. By using dynamic learning maps as the basis for assessments, the DLM system will give teachers a clearer view of each student's knowledge.”

<http://dynamiclearningmaps.org>

- Links to grade level CCSS
- Statements provide a bridge for students to achieve grade differentiated expectations
- Provide challenge & rigor in consideration of the significance of the disability

Decision Points for Students with **Complex Disabilities** (Kelly Fonner)

- Not all students with complex disabilities are automatically measured by Dynamic Maps/ Essential Elements Process; All students should be considered in Common Core Standards first
- If primary disability is a Visual, Hearing, Physical, Communication, Social access issue, consider CCSS with A.T. to the typical materials of instruction & testing; if multiple disabilities present, review level of complexity added onto CCSS task(s) before moving to CCEE
- If primary disability is an Intellectual access issue, first consider CCSS, then move to CCEE. Look to A.T. to lessen the reliance upon staff support, thus allowing for higher level of student independence, leading up differentiated levels

Built-in Access to Dynamic Maps Assessment Delivery

- audio/sound files, ASL videos
- pop-up context-specific dictionary/glossary
- text/image magnification, color overlays, masking
- on-screen note-taking, IntelliKeys accessibility,

AT & App Supports for Writing in the Common Core Standards: For Students with Complex Disabilities

Text Types & Purposes

(Kindergarten)

- Starts with Opinion, informative, or narrate event by drawing, dictation & writing
- Provide topic, facts, closure to writing
- Narratives with sequenced order
- Opinion writing with linking words, reasons, concluding statements
- Explanatory texts with definitions, explanatory points, conclusions

(Grade 3 ramps up significantly the number of skills being worked on in this area each year)

- Organizational structure with lists of reasons, Linking words and phrases
- Sections in writing
- Informative texts examine topic, convey ideas, group ideas, include illustrations, include linking words and conclusions
- Narratives of real or imagined situations with descriptions of thought, action, feelings, etc.
- Use of temporal words
- Facts & Details
- Domain Specific Vocabulary
- Dialog and description
- Logical order to opinion pieces

(Grade 6)

- Writes arguments
- Support claims
- Technical writing
- Establish and maintain a formal style

(Grade 9)

- Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence
- Develop claim(s) and counterclaims fairly, supplying evidence
- Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.

Production & Distribution of Writing

(Kindergarten)

- Digital tools for publishing
- Incorporate feedback to strengthen writing
- Revising and editing from feedback
- Produce and publish writing

(Grade 3)

- Planning, writing , editing process
- Include internet
- Task, purpose and audience
- Demonstrate keyboarding skills
- Command of language standards

(Grade 6)

- Clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience
- Planning, revising, editing, rewriting, or trying a new approach
- Use of technology to collaborate with others

AT & App Supports for Writing in the Common Core Standards: For Students with Complex Disabilities

- Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences
(Grade 9)
- Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative

Research to Build & Present Knowledge

- Participate in shared research
- Recall and gather information
- Read “how to” material & write sequence of instructions
- Shared reading and writing with peers
- Conduct short research projects
- Gather information from print and digital sources
- Take notes
- Apply reading standards to informational texts
- Draw evidence from literary or informational texts to support analysis, reflection, and research.
- Use technology, including the Internet, to produce, publish, and update individual or shared writing products
- Use technology’s capacity to link to other information and to display information flexibly and dynamically.

Range of Writing

- Standards in this area begin in Grade 3
- Write routinely over time for short timeframes
- Write for extended timeframes
- Reflection

(Grade 6-12 Writing in History, Social Studies, Science, & Technical Subjects)

- “ The CCR anchor standards and high school standards in literacy work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.” www.corestatestandards.org

Finding a “Pencil” for Every Student

What is Assistive Writing?

- takes the place of (alternative) or augments pen/pencil
- produces a hard copy
- may need to be portable
- a tool to allow student to meet the writing requirements of the curriculum

What Assistive Writing Technology is NOT!

- not computer-aided instruction
- not the only tool to be considered
- not the answer to all writing situations/needs

Follow all the processes that you use and know already.

- Universal Design for Learning (www.cast.org/udl)
- SETT Framework (www.joyzabala.com)
- Feature Matching for product/system/app selection
- Least invasive, obtrusive/ easiest to set up, etc.

AT & App Supports for Writing in the Common Core Standards: For Students with Complex Disabilities

Adapt the Surface and/or their Stability

- Preferential Seating
- Room Lighting
- Adapted Paper - larger lines, raised lines, highlighted lines
- Size of Materials
- Give Boundaries – Tactual, Visual
 - Templates - made for filling out envelopes, signature, and check writing.
- Non-Slip Surfaces – Dicem, Clipboards
- Slant Boards
- Provide Stability – Weights, Splints
- Aid mobility – Mobile Arm Supports, Rolling Tables

Built-in Accessibility Features of Technology

- Windows Ease of Access – Magnifier , High Contrast, Narrator, Sound Sentry, Keyboard, Sticky Keys, Toggle Keys, Filter Keys, OnScreen Keyboard w/Word Prediction & Scanning, Mouse Keys, Speech Recognition
- Macintosh Universal Access – Slow Keys, Mouse Keys, StickyKeys, Mouse, Seeing, Hearing, Voice Over
- General Computer Controls - Mouse controls, Keyboard equivalents, Font options, Color screen options, Label & Menu Controls, Alias & Shortcuts

Every Student will have a Pencil (*Hanser & Erickson*)

Handwriting Supports

- Pen/pencil size
- Pen/Pencil Grips
- Stencils
- Markers
- Whiteboards
- Crayons/chubbies
- Kinesthetic Feedback
- Fill in Blank Forms
- Cued Notetaking

Writing Alternatives

- Stamps
- Etch-a-Sketch
- Magnetic Letters
- Magnetic Words
- HeadStick w/markers
- Chalk attached to wheelchairs
- Labels/Stickers
- Partner Assisted Writing (Scribe)
- Lotech alphabet choice displays

Technology Alternatives

- Portable Word Processors
- Netbook
- Laptop
- Computer
- Alternate Keyboards
- OnScreen Keyboards
- Voice Recognition System
- Symbol Writers
- Switch activated keyboards

Process Considerations: Applying Technology as a Cognitive Support

- Word cards, word wall, word banks, picture banks
- Sentence starters, story starters
- Cued notetaking
- Outlining, webbing

Create Electronic Books

- Student Authored Stories
- Educator (selected vocabulary) Stories
- Content Oriented Stories

Talking Word Processors

- Talking Word Walls
- Motivate Writing
- Auditory Check Written Work
- Listen to Written Work and Stories

AT & App Supports for Writing in the Common Core Standards: For Students with Complex Disabilities

Symbols to Text

- Picture based writing
- Fail-safe writing activities
- Daily schedules and organizers
- Story Retelling
- Outline a Story or Paper

Multi-Media Tools

- “Driting” Illustrated Stories
- Add Sound clips
- Add Spoken Text to Characters
- Have Story Text Read

Possible Solutions for Note Taking

- Note taking Pens
- Graphic Organizers - Brainstorm Ideas/Lists
 - Generate ideas apart from writing
 - Record ideas in list form
 - Record ideas into a digital recorder
 - Rapid fire mode for brainstorming and listing ideas
- E-Readers with Writing Tools - Students learn the “Process of Writing”
 - Outlining and Mapping
 - Add notes and expand outline
 - Synthesize outline and notes into a draft
 - Provides auditory feedback

The Writing Process & Assistive Writing Technology may provide supports

1. Prewriting: thinking about a topic, brainstorming & planning
 - graphic organizers, symbol to text systems, voice recognition
2. Drafting: quickly putting thoughts on paper
 - word processing, word prediction software, voice recognition
3. Revising: reworking the organization and details
 - talking word processing, text-to-speech
4. Editing: reviewing and correcting spelling, grammar, capitalization & punctuation
 - talking word processing, text-to-speech, phonetic spell-checks, talking dictionaries, thesaurus
5. Evaluating: reflecting and assessing what has been written
 - talking word processing, text-to-speech
6. Publishing: sharing final writing with others
 - word processing software, multimedia presentation software

Assistive technology alone will not improve students writing skills, they must be paired with good instructional strategies.

Effective teachers know how their students learn and use their strengths, abilities, and interests strategically.