5 Tips for Creating Independent Activities Aligned With the Common Core State Standards

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Promoting independence in all students is an important part of education. It can be difficult, however, to identify meaningful tasks that students with moderate to severe disabilities can complete with full independence. Incorporating visual supports into a student’s independent work provides students with an opportunity to practice previously mastered skills; it also promotes independence and task completion, and can increase response chain length. As this article shows, independent work activities can be developed that (a) rely on readily available items in schools, grocery stores, and craft stores; (b) are tailored to meet the student’s needs; (c) correspond to the Common Core State Standards (CCSS); (d) provide tactile learning opportunities; and (e) enhance students’ fine motor skills.

Mrs. Davis teaches students with moderate to severe disabilities in an elementary school setting. Her classroom has independent workstations for each student, but she has found that the file folder activities she has compiled often do not meet the needs of her students. She would love to identify some activities that are evidence-based; fit the unique needs of her students while addressing the goals and objectives of their individualized education programs (IEP), particularly in building fine-motor skills; and use readily accessible materials (see Figure 1).

Balancing the use of ready-made materials, using evidence-based practices, and meeting students’ individual needs can be difficult for all special educators, especially those who work with students with moderate to severe needs. Mrs. Davis, like other teachers working with this population, would like to identify meaningful tasks that students can complete with full independence. In addition, she realizes that students with moderate to severe disabilities may require prompting to transition between tasks and activities. By incorporating visual supports into her students’ independent tasks, she can provide them with an opportunity to practice previously mastered skills while promoting independence, task completion, and increasing response chain length (i.e., the number of tasks a student can complete during one session; National Professional Development Center on Autism Spectrum Disorders [NPDC on ASD], 2010).

**Visual Organization of Structured Work Systems**

One technique teachers like Mrs. Davis can use to provide students with support and foster independence is the visual organization of *structured work systems*, which provides necessary supports by visually answering four questions for the student (Mesibov, Shea, & Schopler, 2005; see Figure 2):

1. How many tasks do I need to finish?
2. What tasks do I need to do?
3. How will I know when I am finished?
4. What do I do when I am finished my work?

Structured work systems are a component of *structured teaching*, an instruc-
**Figure 2. Visual Organization of Structured Work Systems**

- **How many tasks do I need to finish?** 4
- **How will I know when I am finished?** When all the shape cards are matched to the bins.
- **What do I do when I’m finished my work?** Go to computer.

Task strip at the top of the student’s desk. The student matches each shape card to its corresponding bin, then completes the activity inside.

Cameron matching playing cards to a number line at his independent workstation.
In preschool (Bennett, Reichow, & Wolery, 2011; Ozonoff & Cathcart, 1998), elementary and middle school (Dettmer, Simpson, Myles, & Ganz, 2000; Hume & Odom, 2007; Panerai, Ferrante, & Caputo, 1997; Panerai, Ferrante, & Zingale, 2002), high school, and older adults in the workplace (Keel, Mesibov, & Woods, 1997). The NPDC on ASD (2010) has identified structured work systems as an established evidence-based practice for students with autism, both high and low functioning. Structured work systems have also been shown to be effective with students with developmental disabilities (Bennett et al., 2011) and multiple disabilities and visual impairments (Taylor & Preece, 2010). Carnahan, Hume, Clarke, and Borders (2009) and Hume and Carnahan (2008) have addressed how to set up work systems for those who are unfamiliar with the process.

Hands-On Activities to Enhance Student Understanding

In addition to establishing support systems for fostering independence, Mrs. Davis also needs to address academic content. She needs to incorporate academic concepts into meaningful independent work based on the general education curriculum while also addressing students’ IEP goals. The Common Core State Standards (CCSS) provide teachers like Mrs. Davis “a consistent, clear understanding of what students are expected to learn” (CCSS Initiative, 2012, Mission Statement), including students with moderate to severe disabilities. Therefore, Mrs. Davis needs to ensure the academic concepts she is teaching directly relate to the general education curriculum standards.

One way to better meet the needs of students with moderate to severe disabilities is by using manipulatives to promote more active student engagement at any age and of varying levels of ability, in both the special education and inclusion classrooms. Because these activities align with the CCSS, teachers like Mrs. Davis can be confident they are teaching to general education standards.

Tip 1: Take Advantage of Math Manipulatives

Of the plethora of math manipulatives available, Unifix cubes and Links are two of the most common, generally used for sorting colors and completing patterns. Classifying objects into given categories aligns to the kindergarten (K) CCSS for Measurement and Data (MD), encouraging students to “look closely to discern a pattern or structure” (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010, p. 8). The difficulty level of the patterns can be varied based on a student’s level of functioning and their IEP objectives.

In order to provide the student with a visual cue of which task to complete, objects can be preassembled into two to three of the same colored cubes/Links. These patterns provide a visual model for students to follow when sorting or for pattern repetition activities (see Figure 3). Other materials (e.g., counter chips, sorting bears, pattern or attribute blocks) can also be used for sorting colors, sizes, and objects, and these types of materials are often found in math kits or special education departments (see box, “Creating Sorting Tasks”). Some classroom manipulative sets come with larger pieces (for overhead projectors and demonstration) that work perfectly for sorting sizes (see Figure 4) or for students with dexterity challenges.

Pattern blocks or tangrams, generally used to have students match the appropriate piece to a picture (K–Grade 1 Geometry CCSS), can be used in more challenging ways, such as by providing students with more blocks than needed for a template. If design templates are not available, make your own by tracing the blocks on paper. For an activity where students match pattern blocks to the shapes on the paper, just trace the shape outline, or...
color the shapes to vary the level of difficulty.

Teachers can use pattern blocks, attribute blocks, or tangrams to help students master more difficult skills, too, by creating and taking a picture of a design and then having students recreate the pictured image. Pattern and attribute blocks can also be used in beginning geometry, to identify and sort by number of angles (Grade 2 Geometry CCSS).

Most classrooms have decks of cards to practice an array of math skills. Teachers can use Uno or playing cards to teach sequencing numbers or matching numbers to a number line. Counting to 100 by ones and tens and counting forward beginning from a given number within a known sequence (instead of having to begin at 1) align to the kindergarten CCSS for Counting and Cardinality.

Early elementary grade classrooms or special education departments often have an analog clock face stamp. Stamp the clock face on an index card, laminate it for repeated use, and attach an hour and a minute hand. Use a dry-erase marker to write a digital time on the card and have the student move the clock hands to show the given time (Grades 1–3 MD CCSS). Now that you have found those stored-away math manipulatives, let’s take a look at some new uses for Unifix cubes.

### Tip 2: Use Unifix Cubes in New Ways

**Spelling, Sequencing, and Matching**

Unifix cubes can be used for spelling, sequencing, and matching (see Figure 5) by writing letters and numbers on the face of the cubes with a permanent marker. Students can use these cubes to sequence the letters in their name, spell out their address, or sequence numbers for their phone number. Spelling activities can range from matching upper and lowercase letters (K Print Concepts CCSS) to spelling words (K–Grade 5 Conventions of Standard English CCSS). Letters can be used to spell the color name of the

### Creating Sorting Tasks

When creating sorting tasks be sure to provide the student with visual cues as to how to sort the items. Small containers or different pieces of paper provide the student with a place to put the sorted objects; these should have a visual cue showing the item that belongs there. For example, the actual object can be taped to the paper or placed in the container. Colored paper can also be used for sorting colors, either on its own or affixed to the bottom of a container. Sorting containers can be recycled objects; the plastic bottoms of individual cereal containers served in most elementary school cafeterias work perfectly for sorting containers. Another option is to ask coworkers for their leftover, reusable food containers (such as those for butter and cream cheese). Students can sort colors using pom-poms, buttons, foam stickers, dinosaur counters, pattern blocks, or basic counters.
cubes (e.g., the letters for orange on orange cubes and the letters for red on red cubes).

Another activity is to pair Unifix cubes with pictures and have students add beginning or ending sounds to pre-assembled word parts (K–Grade 1 Phonics and Word Recognition [PWR] CCSS). For example, give the student a picture of a cat and the preassembled letters at with the choices of c or n on individual letter cubes, or a picture of a dish with di preassembled cubes and the letter choices s, t and h. Of course, spelling the entire word is also an option for a higher level of difficulty (K–Grade 5 Conventions of Standard English CCSS). More or fewer choices can be given to vary the difficulty level (i.e., adding letters that are not needed for the spelling of the word). Either vary the colors or use all the same color cubes within a task to avoid providing unintentional prompts. Of course, Reading Rods can be used instead, if they are available in your school.

Using letter beads is another alternative for supporting fine motor skills practice. (Use pipe cleaners for stringing the beads, as the beads don’t slip off as easily and their rigidity makes threading much easier.)

Mathematics Skills

Unifix cubes can be used to practice a variety of math skills, too:

- Draw dots on the cube face and have students match the number of dots to the correct numeral, or even spell the number word. (Counting to answer “how many?” is a K Counting and Cardinality CCSS.)
- Draw numbers on the cube face (e.g., 1–9 or 21–30, depending on the student’s level of functioning and IEP objectives), and have students sequence the numbers (K Counting and Cardinality CCSS).
- Use three-digit numbers to increase the difficulty level (Grades 1 and 2 Number and Operations in Base Ten [NBT] CCSS), or incorporate skip counting (Grade 2 NBT CCSS).
- Have students assemble cubes to represent a multi-digit number by using sorting envelopes for each place value (Grade 2 NBT CCSS); for example, to represent the number 4,321 a student would place four cubes in an envelope labeled thousands, three cubes in an envelope labeled hundreds, and so on. Or, have students represent two-digit numbers by assembling tens rods and ones (K–Grade 1 NBT CCSS); for example, to represent the number 23 the student would assemble two rods of ten and leave three single cubes. Giving the target number in words increases the difficulty level.
- Have students assemble sets of odd and even numbers and then place the cubes in containers labeled odd and even (Grade 2 Operations and Algebraic Thinking [OA] CCSS).
- Place stickers on cubes and provide a written prompt indicating which item appears first, second, third, and so on, to address ordinal positions.
- Write mathematical symbols on some of the cubes to incorporate equations (patterns of equations can be taught by writing the symbols on one color, numbers in the equation on a different color, and the answer on yet a different color). Provide students with pre-assembled equations for the student to add, subtract, multiply, or divide (K–Grade 3 OA CCSS; Grade 2 NBT CCSS). To increase the difficulty of the task, the student could assemble the correct equation first, using knowledge of mathematical properties (e.g., addends can be in any order, the larger number has to be first in division; Grades 1 and 3 OA CCSS). Or, provide a word problem and have the student represent the words with an equation, then solve to find the answer (Grades 1–4 OA CCSS; see box, “Independence Is Key”).
- If Unifix cubes are too small to be easily manipulated, larger building blocks or even snap beads can be used in the same manner.

### Tip 3: Get Creative With Clothespins

**Clothespins** can be used for many different tasks of varying levels of difficulty. Colored clothespins can be used for sorting or matching colors and creating or completing patterns (K MD CCSS; see Figure 6). Colored clothespins can also be matched to color words written on index cards.

Regular clothespins can be used for a variety of matching tasks as well. Write numbers on clothespins and have students match to object sets (K Counting and Cardinality CCSS); for example, have students count stickers or images on an index card and attach the corresponding number clothespin (see Figure 7). Number clothespins can also be matched to number words.

Students can also match letters written on clothespins to beginning sounds in pictures (K PWR CCSS); include digraphs to increase the difficulty level (Grade 1 PWR CCSS). Having students match words written on clothespins to pictures on index cards allows them to demonstrate their ability to accurately decode words; for example, distinguishing between mop and map’s short vowel sounds (K–Grade 5 PWR CCSS). Similarly,

- Using pictures of a cap and a cape or a bat and a boat can support student practice in discriminating between long and short vowel sound spellings.
- Pictures of tied and untied shoes could provide students the opportunity to demonstrate their knowledge of prefixes (retie/untie).
- Pictures of a dog and dogs could be used to demonstrate knowledge of basic suffixes.

Have students match words to words to increase the difficulty level. For example, write one word on the
clothespin and a synonym on an index card (Grade 4 Vocabulary Acquisition and Use CCSS). Index cards can be laminated and used with dry erase markers for repeated use. Incorporate sorting activities using words and pictures.

▲ Write the words clothing and toys on index cards, and have students match pictures or words on clothespins of specific clothing and toy items.

▲ Short and long vowel sound spellings could also be sorted; the words short and long could be written on index cards and the words kit, kite, cot, coat, lit, and light on clothespins.

▲ A picture of a child’s body could be matched with body part words written on clothespins (e.g., hand, arm, head, foot, leg).

Clothespins can also be used to extend math skills beyond the kindergarten-level objectives of matching, counting, and completing patterns. Address a wide range of math skills by writing a word problem on an index card and providing answer choices written on clothespins (K–Grade 4 OA CCSS). Provide students with a single word problem with distractor answers or with three different word problems and have the student match each answer to the correct problem (provide clothespin (true or false) to the card. Or, present the student with an equation written on a sentence strip that has a missing number and have the student identify the missing number by attaching the correct clothespin to the appropriate place on the sentence strip (Grades 1 and 3 OA CCSS).

Address telling time objectives by printing or stamping an analog clock onto a card and writing digital times on clothespins (Grades 1–3 MD CCSS). Draw a figure with square units on an index card and have the student count the squares to identify the area by attaching the correct answer clothespin to the card (Grade 3 MD CCSS).

Unifix cubes to assist students with solving the problem). Develop word problems involving length or money concepts (Grade 2 MD CCSS) or time intervals and perimeters of polygons (Grade 3 MD CCSS).

To address another first-grade OA CCSS, write an addition or subtraction equation on an index card and have the student determine if the equation is true or false by attaching the correct answer clothespin to the object. Write a fraction on a clothespin and have the student attach it to the appropriate place on a number line (Grade 3 Number and Operations CCSS); sentence strips can be repurposed as number lines and laminated for repeated use.

Tip 4: Visit Your Local Craft Store

Fairly inexpensive materials can be purchased at local craft stores that easily lend themselves to creating independent tasks. Foam stickers come in a variety of colors and shapes and are perfect for sorting activities (just leave the backing on for multiple uses). Have students sort the shapes by number of angles (Grade 2 Geometry CCSS). Address a fourth-grade OA CCSS by having students sort shapes based on the presence or absence of parallel or perpendicular lines, or by specified angles. Pick up some Velcro while you’re there to create a work product that you can check (see box, “Using Magnets or Velcro to Create a Work Sample You Can Check”).

Silly Putty (or any other type of putty, or Play-Doh) can be used to hide beads or other small objects for the student to pull apart and find (see Figure 8), providing an alternate way to practice fine motor skills. In order to create a visual cue to let the student know how many objects to find and what they look like, take a picture of the objects and put a box beside or

Address a wide range of math skills by writing a word problem on an index card and providing answer choices written on clothespins.
underneath each object to allow the student to find and sort objects. Or, if identical items are available, affix one of each item to an index card and draw a box underneath the item for the student to put the found match into. Then, have the student sort the objects by three-dimensional shape, part (e.g., number of sides, vertices/corners, or angles), or other attribute (e.g., having sides of equal length or number of equal faces) to address kindergarten to second-grade Geometry CCSS.

**Buttons** can be used for sorting by color, size, or number of holes (K MD CCSS). **Craft sticks** (available in different colors) can also be used for sorting or sequencing activities, with the student placing them into pocket holders or a shallow container or box with small holes cut into the top. Colors can be drawn on the sticks or pictures can be glued to the sticks for a variety of activities at all levels. For example, **picture cards** can be sorted by beginning sound or rhyming words could be paired together (K Phonological Awareness CCSS). Write words on the sticks for sorting tasks or composing sentences (K-Grade 5 PWR CCSS); verbs can be sorted by tense or nouns by category (e.g., living and non-living things).

**Beads** are another craft store item that can be used for sorting activities; use them for creating and completing patterns, too. **Gimp** can be used as an alternative stringing material, because it remains rigid for easier threading. **Pom-poms** with holes for threading can be used to create and complete patterns while providing the student with a different tactile feel; regular pom-poms can be used for sorting activities, too. Another option for incorporating a variety of textures is sorting **fabrics** and other materials like **cotton** and **sandpaper** (see Figure 9). Local craft stores often have scraps from cutting a variety of fabrics that they will give you for free – just ask! Another great technique is to wrap different types of fabric around blocks and create a simple structure, and then take a photograph. Give students the blocks and the photograph and have them follow the template to create the structure. Include blocks that are not in the structure to make the task more difficult.

**Tip 5: Use Grocery Store Items for Academic, Daily Living, and Vocational Skills**

Ordinary items purchased at grocery stores can be used to create a variety of independent work tasks. **Plastic or paper drinking cups** can be used for sorting colors and patterns, counting, and stacking. For counting, write a number on a paper plate and have the student stack that number of cups on the plate (K Counting and Cardinality CCSS). Students can also sort **plasticware** into containers by spoon, fork, and knife. Make a template for a place setting using construction paper as a place mat and have the student place the items in the designated areas by matching each item to its corresponding shape. Utensils can also be used to make sets. Folding **napkins**, hand towels, washcloths, clothing items, or matching socks supports attainment of daily living skills. Although these may not have CCSS correlations, these skills are often a part of a student’s IEP.

Using readily available materials in schools, grocery stores, and craft stores allows for the creation of a variety of tasks to fit the unique needs of every...
student at little to no cost. Not only do the tasks help promote independence, they help maintain students’ previously mastered academic skills, and allow for the practice of fine motor skills in a variety of engaging ways. So, get out there and start gathering those materials—your students are waiting!

References


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