Sustaining Preschool Curricula Use: Key Ideas

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Susan Palmer, Eva Horn, Joan Lieber, Gretchen Butera, Amber Friesen, and Jean Kang
Representing the University of Kansas, University of Maryland, and Indiana University
a newly funded project addressing universally designed preschool curriculum, Children’s School Success Plus (+).

Components of the CSS+ are to ensure that preschool curriculum meet principles of universal design for learning and provide a framework for supporting teachers to provide individualized supports for children with identified disabilities.

Collaborators:
- Joan Lieber, University of Maryland
- Gretchen Butera & Amber Friesen, Indiana University
- Eva Horn, Susan Palmer, & Jean Kang, University of Kansas
CSS+: Our Work Scope

- Multi-tiered level of support
Universal Design in Early Education

• Supporting children who presented challenges in the past was typically addressed by:
  • Making changes, adaptations, and/or accommodations to the preschool environment
  • If these weren’t enough then we looked for additional times and places during the day to provide individual instruction

• Changes were “added” to the regular environment to accommodate or include the child with special needs
That rather than making individual accommodations and modifications that focus on making the learning environment work for an individual child we look to designing and implementing our learning environments using a universal design perspective from the start and provide all children with a variety of ways to access and process new information and demonstrate what they are learning.
So what is Universal Design?

- We can be disabled or empowered by design.
- As stated so well by Winston Churchill: "We shape our environments and our environments shape us"
- However, often our environments are not designed to recognize diversity that exists in our society. Thus, the concept of 'universal design' was suggested...

"Universal Design is an approach to design that honors human diversity. It addresses the right for everyone—from childhood into their oldest years—to use all spaces, products and information in an independent, inclusive, and equal way. It is a process that invites designers to go beyond compliance with access codes—to create excellent, people centered design."

Ostroff, 2004
Myths About Universal Design

1. Universal design is just another term for accessibility and ADA
2. Universal design is just for older, disabled people
3. Universal design is ugly and costs more
4. Only a small percentage of people benefit from universal design so why bother?
Let’s Move on from Environmental Access to the Concept of Universal Design for Learning:

- Universal Design for Learning (UDL) is a framework for curriculum design that fosters access to learning for everyone. Based in research about the learning brain and the development of new digital media, UDL helps identify and remove barriers from teaching methods and curriculum materials, enabling each student to engage with learning and to progress.
Universal Design = Universal Design for Learning

“The difference is in the goals. Education is an exercise in constructing knowledge and skills. It requires a careful balance of support and resistance. Thus Universal Design for Access provides the greatest amount of support possible at all times, while Universal Design for Learning requires careful attention to the goals of any given learning experience so that a balance of challenge and support can maximize the learning opportunity.”
Let’s Learn a bit more:

Universal Design for Learning (UDL)
Principles and Practice
What do we mean by Universal?
<table>
<thead>
<tr>
<th>Three Essential Qualities of Universal Design for Learning (adapted from DEC, 2007)</th>
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<tbody>
<tr>
<td><strong>Curriculum provides Multiple Means of Representation</strong></td>
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<tr>
<td>Ensures instruction, questions, expectations, and learning opportunities are presented in a variety of formats and at different levels of complexity to address a range of ability levels and sensory processing needs.</td>
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<td><strong>Curriculum provides Multiple Means of Engagement</strong></td>
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<tr>
<td>Ensures that a range of strategies are used to arouse children’s attention, curiosity, &amp; motivation, thus matching a range of child interests, preferences, &amp; personal styles. Engagement is maintained by providing a range of levels of scaffolding, repetition, &amp; appropriate challenges to support all children’s learning.</td>
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<td><strong>Curriculum provides Multiple Means of Expression</strong></td>
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<td>Ensures that all children have a range of formats for responding, demonstrating what they know, and to express their ideas and preferences. Furthermore, child have a variety of options in the materials, toys, and resources that they use such that they reflect their individual preferences &amp; abilities.</td>
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Let’s briefly take a look through one of CSS+ Activities:
Measurement & Graphing: lesson – “Apples Can Be Compared in Different Ways”

Large Group Activity, the teacher introduces the lesson by:
- Reflect and Ask: Asking the children what they know about apples, while showing red, yellow, and green apples of different sizes.
- Plan and Predict: Teachers and children make a plan about how to measure the weight and circumference of the apples. They predict which apple they’ll like the best. The teacher uses a graph to record children’s predictions about their favorite apple. The children taste the different apples and then see if their predictions were confirmed.
Multiple Means of Representation

Multiple means of representation are built into the curriculum to address the widest range of learners possible. The goals and expectations, learning opportunities and lessons, toys/materials, and resources are designed to be multi-sensory, available in different formats, flexible, and to have multiple access points and levels of complexity, allowing children to participate in ways that best meet their needs. This chart describes just a few of the numerous possibilities.

Caregivers provide toys/materials that combine different and multiple sensory features for children to experience. For example:

- Colorful toys/materials that make sounds.
- Toys/materials with interesting shapes and textures.
- Toys/materials that move.
- Toys/materials that can be held, shaken, and mouthed.

Caregivers communicate/interact with children in many different ways including:

- Talking.
- Singing songs.
- Reading books.
- Showing pictures.
- Playing music.
- Dancing.
- Sharing toys and materials.
- Playing finger games.
- Using gestures.

Teachers use different and multiple formats to provide important information. For example, teachers inform children about the daily schedule by:

- Presenting the schedule verbally.
- Discussing the schedule in groups or one-on-one.
- Posting the schedule on the wall in a series of simple icons and/or photographs.
- Writing the schedule with simple words.
- Making the schedule available on rings of cards or with Velcro pictures to provide visual reminders of the daily routine.
- Recording the schedule on a cassette tape that is available in the listening center.
- Preparing the schedule for children to use on a computer.

Teachers use multiple means of support. For example, to help children learn to share teachers might:

- Role-play sharing situations.
- Read stories about sharing.
- Watch and discuss a video.
- Depict sharing with drawings.
- Discuss sharing prior to activities.

Teachers use different and multiple formats to provide new information and review critical concepts. For example, when teaching a new letter of the alphabet, a kindergarten teacher might provide opportunities to:

- Write the letter on paper or on an overhead transparency that is projected on the wall.
- Make the letter out of Play Doh.
- Write the letter in sand/shaving cream.
- Find the letter in alphabet noodles.
- Move the children’s bodies into the letter shape.
- Sing silly letter songs.
- Read books about the letter.

More complex opportunities are simultaneously provided for children who are ready, such as a creative writing center where children work on their own stories using the new letter. New concepts are explained in many ways. For example, co-teachers might explain a new science concept using:

- Graphic organizers.
- Pictures and 3-dimensional models.
- Charts with critical points mounted on the wall.
- Individual materials for later study/review.
- Models for children to manipulate and explore through touch.
- Interactive computer programs.
## Multiple Means of Engagement

Multiple means of engagement are provided in order to appeal to, motivate, and meet the needs of a wide range of children. Children may choose for themselves from an array of options, enabling children to pursue their goals, develop preferences, build confidence, establish priorities, persist in the face of difficulty, and care about learning. These examples are just a few possibilities.

<table>
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<tr>
<th>Infants/Toddlers</th>
<th>Preschoolers</th>
<th>Kindergarten/Primary</th>
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<td><strong>Caregivers</strong></td>
<td><strong>Teachers</strong></td>
<td><strong>Teachers</strong></td>
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<tr>
<td>Caregivers provide toys/materials that offer <strong>different levels of complexity</strong>, such as:</td>
<td>Teachers provide multiple and varied ways for children to direct their play and be involved in routine and planned activities. For example:</td>
<td>Teachers provide multiple and varied opportunities for children to be involved in learning. For example:</td>
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<td>• Rattles that can be held with one or two hands.</td>
<td>• Children may select from an inspiring array of creative materials for an art project. Rather than just copying an adult’s model, children may cut or tear, color or paint, glue or tape, build a model, and create alone or work with a peer.</td>
<td>• The kindergarten teacher designs many different opportunities to engage children in practicing their mathematics skills. Children are encouraged to:</td>
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<td>• Blocks of different sizes, weights and textures.</td>
<td>• Children in the dramatic play area may choose among a collection of creative, open-ended materials such as scarves, writing supplies, and containers of odds and ends that encourage them to participate in personally meaningful ways. They may choose to act out roles and scenarios that are either fantasy- or reality-based, that represent their own or other cultures, and that are simple and customary or complex and imaginative.</td>
<td>• Distribute snacks and determine how many napkins are needed.</td>
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<td>Caregivers ensure that multiple and <strong>varied</strong> learning opportunities, daily activities, and toys/materials are available so children can select what appeals to them. For example:</td>
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<td>• Choose among a variety of manipulatives such as cubes, links, beads and tiles, as well as equipment for measuring, counting and solving problems.</td>
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<td>• Children may choose various levels of independence by selecting activities and toys/materials that are simple, straightforward, and foster independent play, or choose things that require adult support and organization. For example, a child may be able to explore a mirror mounted in an easily held rattle frame but may need support to explore a pop-up book.</td>
<td>• At different times children may prefer toys/materials that are soft and cuddly, or things that invite active, boisterous play.</td>
<td>• Play a rousing board game with dice, or quietly connect the dots.</td>
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<td>• Children may select activities and toys/materials that are familiar and predictable, such as an easily activated light-up music box, or items that are new and surprising, such as a jack-in-the-box.</td>
<td></td>
<td>• Select among number books, computer software programs, and counting songs.</td>
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<tr>
<td>• At different times children may prefer toys/materials that are soft and cuddly, or things that invite active, boisterous play.</td>
<td></td>
<td>• Everyone in a second grade class will be reading about the same topic, and the teacher provides resources and enables children to:</td>
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**THE DIVISION FOR EARLY CHILDHOOD** of the Council for Exceptional Children
**Multiple Means of Expression**

Multiple means of expression ensures children have a variety of formats for responding, demonstrating what they know, and for expressing ideas, feelings, and preferences. In addition, children have options in their use of resources, toys, and materials, addressing individual strengths, preferences, and abilities. This chart presents just a few examples of the many ways that children might demonstrate what they know and are able to do.

<table>
<thead>
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<th>Children are encouraged to show preferences, what they are able to do, and what they know in different and multiple ways. For example:</th>
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<tr>
<td>- Children show how they prefer to play with blocks by acting upon them in different ways such as building, stacking, linking, making patterns, banging, holding, or mouthing.</td>
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<td>- Children respond to caregiver comments and questions using verbal expressions (e.g., speaking, using assistive technology with voice output) and/or non-verbal expressions (e.g., facial expression, gestures, pointing to pictures).</td>
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<td>- Children are allowed to participate during a playgroup by answering simple questions, labeling, reciting, watching, sorting, or remaining with the group.</td>
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<th>Children are encouraged to express their understanding in many different ways. For example, children learning nursery rhymes may:</th>
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<td>- Recite or sing the rhymes individually or in small groups.</td>
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<td>- Act them out in the dramatic play area or with puppets.</td>
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<td>- Create a visual representation in the art area.</td>
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<tr>
<td>- Review the rhymes in the listening center, and record themselves saying the rhymes or creating their own rhymes.</td>
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<tr>
<td>- Use the overhead projector to create and display their work.</td>
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<tr>
<td>- Use the Smart Board to visit an interactive Web site to share with their peers.</td>
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**Children are encouraged to communicate with peers in a variety of ways including:**

- Using words to talk.
- Writing notes and letters.
- Making pictures.
- Creating songs or poems.
- Using sign language or gestures.
- Using communication boards or assistive devices.

| Children have multiple opportunities to demonstrate their knowledge and skills, ideas, feelings, and preferences. For example, children in third grade are given a list from which they may select the way they want to show what they have learned in their social studies lesson. They may work alone, with a partner, or may form small groups to:
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<td>- Write a report on one of several key topics.</td>
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<td>- Write a story about the time period discussed.</td>
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<td>- Create a newspaper representing stories and goods from the time period.</td>
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<td>- Put on a dramatization.</td>
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<td>- Write and/or perform a song or rap.</td>
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<td>- Create a PowerPoint slide show.</td>
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<tr>
<td>- Make a model or diagram.</td>
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<td>- Create a collage or artistic representation.</td>
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</tbody>
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CSS+ Activity Plan
Contacts:
Susan Palmer, Ph.D.
spalmer@ku.edu

Eva Horn, PhD
evahorn@ku.edu

Joan Lieber
jlieber@um.edu

Gretchen Butera
gbutera@indiana.edu

Amber Friesen
afriesen@indiana.edu

Jean Kang, Ph.D.
inni0127@ku.edu

Questions?