

DPS S.M.A.R.T. Room promotes kindergarten pre-reading skills

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Kindergarten teachers at Dyersburg Primary School are busy learning about the latest brain research and multi-sensory teaching techniques.

And they are finding out what children have known for generations - the importance of play.

This academic year, DPS set aside a classroom for kindergarteners known as the S.M.A.R.T. room. The term may bring to mind a mini-"think tank" atmosphere where child geniuses spout Shakespeare and the Einstein's Theory of Relativity, but what is found there is an educational twist on many of the traditional pastimes enjoyed by children for generations.

An inviting room full of primary colors and equipment designed to boost pre-reading skills and develop both large and small motor skills, the S.M.A.R.T. room stands for Stimulating Maturity through Accelerated Readiness Training.

The concept is a research-based, school-readiness, staff-development program used in hundreds of pre-K, kindergarten and primary classes throughout the United States. Based on the latest brain research, the program integrates current neuro-developmental maturation techniques into the regular curriculum to produce a booster effect for acquisition, retention and production of basic skills.

And how do kindergarteners do that? By jumping, climbing, balancing, crawling, swinging and, yes, even spinning.

"We found (this program) as we were investigating Coordinated School Health," said DPS Principal Linda DeBerry. "It certainly gives our kindergarten teachers an extra tool to help reach students in all areas."

DPS teacher Lee Ann Duncan led S.M.A.R.T. room activities for the first nine weeks of the school year, with all kindergarten teachers recently completing a four-day training workshop. The training provided teachers with the concepts and objectives of the equipment in the room, as well as variations of each activity to be used in the classrooms, hallways and playgrounds.

"It taps into all those senses," said DeBerry. "We were able to visit another system in the state. Cindy Harvey is our mentor. She did the initial training and the mentor training and will be visiting the school throughout the year with continuing support for the teachers."

"This is a sensory approach to their learning development and enhances their neurological firings in the brain," said Duncan. "Kids automatically need that movement every day. Here, they get that stimulation. The children just love it."

"It's research-based," said S.M.A.R.T. professional Ann Borich. "The movement anchors learning. Activities can be done in the classroom, the hallway, the gym or the playground. Through the program, vision and auditory skills are enhanced and pre-academic areas affected include pre-reading, pre-writing, attention and listening skills."

"Our kindergarteners had an academic goal of learning 80 percent of the letters of the alphabet this first nine weeks," said DPS administrator Sherrie Agee. "Many of the teachers felt what their students had done in the S.M.A.R.T. room had helped them meet that goal."

"DPS is fortunate to have a designated S.M.A.R.T. room where teachers can bring their children daily for 30-minute sessions. Not every district has that," said Borich. "That is a minimum of 80 hours for the school year that provides enrichment and stimulation to work on those skills."

Activities in the S.M.A.R.T. room always meet two criteria. They are based on physiological and neurological readiness skills and always cost effective.

Examples of activities include:

Spinning - known as helicopter spins, also rolling across a floor mat

- primary purpose - to encourage body awareness. Spinning also stimulates the same part of the brain that popular impulse-control medications stimulate - producing a calmer, more focused child.

- classroom relevance - leads to an understanding of left to right, a pre-reading skill. Also helps with body awareness. Students who have problems with body awareness may fall out of their chairs, have short attention spans or reverse letters or words.

Overhead ladder or monkey bars

- primary purpose - to encourage eye teaming. When a child moves across the bars, his eyes must work as a team to allow him to look at and grasp the rungs one by one and move across the ladder.

- classroom relevance - Eye teaming is an extremely important skill for reading. Students who have trouble with eye teaming may view a double text. As a result, they will tire easily, show a decline in comprehension when reading and possibly even avoid academics.

Balance Beam

- primary purpose - to encourage balance and body awareness

- classroom relevance - leads to an understanding of left to right, a pre-reading skill. Also helps with body awareness. Students who have problems with body awareness may fall out of their chairs, have short attention spans or reverse letters or words.

Rebounder (mini-trampoline) - children jump while reciting alphabet letters and the sounds they make

- primary purpose - to encourage development of the Proprioceptive system - a third sensory system in the body that provides internal feedback solely on the status of the body. Jumping stimulates the muscles, joints, ligaments, bones and tendons in the body and helps the child's body understand the orientation of its body parts and movements.

- classroom relevance - a matured Proprioceptive system is necessary for a child to perform in the classroom. The physical activity, when coupled with reviewing a learned skill, also helps incorporate the knowledge into the brain.

Auditory activities - repetitions of same/different/ similar sounds and blends in a game-like fashion

- primary purpose - to encourage auditory skills vital to reading, including phonemic awareness, blending and auditory discrimination. The auditory system stores that information in the language area

of the brain for later use.

- classroom relevance - the ability to recognize, discriminate and blend sounds and then words is crucial to reading. To read, children must have the ability to recognize sounds and later match those sounds to letters. They must also have the ability to discriminate between similar sounds, especially vowel sounds and blend those sounds together.

Skills addressed in the S.M.A.R.T. room include:

Eye-hand

coordination

- primary purpose - to integrate vision with the motor system to reproduce complex patterns

- classroom relevance - the motor component for learning language, eye-hand coordination is also essential in handwriting, drawing, cutting and other fine motor skills

Visual Acuity

- primary purpose - to improve or fine-tune visual clarity. Many S.M.A.R.T. room activities involve focusing and relaxing the eye muscles and lenses.

- classroom relevance - visual acuity is extremely important for academic success. Students must be able to see close-up work clearly and shift their focus from the book or desk to the board quickly and accurately. Problems with visual acuity may cause children to blink, squint, rub their eyes, endure headaches or take longer than necessary to complete assignments.

Fine Motor Skills

- primary purpose - to develop small muscles in the hand and fingers in preparation for pre-writing. Sensory stimulation on the hands through crawling opens the hands and lays a foundation for fine motor skills. Lacing cards and stringing beads are also offered.

- classroom relevance - Fine motor skills are an important pre-requisite for writing. They are also necessary for drawing and cutting.

Spatial Relations

- primary purpose - to develop normal internal and external spatial concepts including bilateral coordination, left-right awareness and directionality.

- classroom relevance - necessary for body concepts like left-right, up-down and front-back. Essential for learning to read and write. Students who struggle with spatial relations may confuse similar letters or words, misalign digits, reverse letters or words or have improper spacing between letters and words.

Primitive reflexes

- primary purpose - to integrate retained primitive reflexes, which in normal development are expected to be integrated by the end of the first year of life.

- classroom relevance - encourages writing with ease and sitting comfortably in the classroom. Students with retained primitive reflexes may display a range of difficulties in the classroom, including using too much pressure when writing, holding material to one side when reading or writing, the need to sit with legs straight or arms bent and even hyperactivity.

"This enhances all their learning," said Agee. "It's for students of all levels."

"This gives every child a chance to be successful," said DeBerry.

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