During the 2006 North American Division Teachers’ Convention in Nashville, Tennessee, many “ad hoc” discussion groups spontaneously formed, created by teachers who usually didn’t have time to discuss best practices, share their professional wisdom, or collaborate in a “think tank” environment. The keynote addresses and breakout sessions stimulated discussion on a variety of topics, prompting teachers to gather in hallways and hotel rooms, excitedly sharing their opinions and ideas.

Two such teachers, both of whom taught at Redwood Adventist Academy, were rooming together in the Gaylord Opryland Hotel. Andrea Pfeifer served as the preschool director, and I taught grades 1 and 2. One night, after dinner with friends and a leisurely walk around the domed, indoor Opryland Hotel gardens, Andrea mentioned how wonderful it was to be included with all the regular teachers—the first time that had ever happened—even though she had been at Redwood for more than a decade. I mused that I wished more children from the community would continue on at Redwood after “graduating” from preschool. So we pondered together what could be done to make a difference. How could we encourage parents of preschoolers to enroll their children in Redwood’s kindergarten program?

After Andrea and I prayed together, the wheels started turning, and the ideas started flowing! What if we started doing things together, preschool through 2nd grade?

We mapped out the nine months of school on paper and brainstormed a list of special days that we already celebrated—but, in most cases, only in our own classrooms. We wondered if Debbie Schonert, the kindergarten teacher, would

**BY CAROL SPAULDING SERNA**

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**Sing a Song of Special Days**

**Using Multiple Intelligences With Mixed-age Grouping**
agree to our plan. She thought it was a great idea.

Andrea, Debbie, and I decided to use a mixed-age grouping, including children from preschool, kindergarten, pre-1st, 1st, and 2nd grades in each group of students. But were these ideas educationally sound? Were they best practices? Or were they just a lot of warm and fuzzy fun activities that wasted academic time? The rest of the story is a wonderful odyssey that has spanned nine years!

Social and Cognitive Benefits of Mixed-age Grouping

American education started with mixed-age grouping in Dame Schools and one-room schoolhouses. The terms mixed-age and multi-age grouping are used to emphasize the goal of using teaching and curriculum practices that maximize the benefits of interaction and cooperation among children of various ages.

Evangelou states that prosocial behaviors are indicators of social development. Actions such as helping, sharing, and taking turns facilitate interaction and therefore help develop socialization. “Interaction in mixed-age groups elicits prosocial behaviors that are important in the social development of the young child.”

Evangelou also noted that since mixed-age grouping encourages cooperation and other prosocial behaviors, the discipline issues that arise in more competitive situations are less evident.

Katz found that in experiments with children in same-age or mixed-age groups, the older children in the mixed-age group “spontaneously facilitated” other children’s behavior. In single-age groups, the same children “spontaneously domineered” the group and showed a tendency for “one-upmanship.” When the mixed-age groups were asked to make decisions, they reached a consensus with more organizing communication and greater leadership skills than children in same-age groups. “Other prosocial behaviors such as help-giving and sharing were more frequent in mixed-age groups. Turn taking was smoother, and there was greater social responsibility and sensitivity to others in mixed-age groups.”

Katz’s research on cross-age interaction “indicates an age range of greater than one year can provide a level of intellectual stimulation that supports the development of both intellectual and academic competence.” This benefit of mixed-age grouping on cognition arises from cognitive conflict, which happens when interacting children are at different levels of understanding. “If two children are working on a task that one understands well and the other does not, the latter is likely to learn from the
former if he or she understands the task very well, and if they argue. Only if one understands something very well can explanations be varied during an argument.”

Evangelou writes that the contribution of cognitive conflict to learning “is not simply that the less-informed child imitates the more knowledgeable one. The interaction between the children leads the less-informed member to internalize new understandings.”

However, just implementing mixed-age grouping will not, by itself, yield the benefits implied by the research on mixed-age interaction. “If these benefits are to be realized, the curriculum must be modified to provide a variety of activities in which children work together on projects and other activities, preferably in small multi-age groups.” We investigated which best practices could be incorporated into our “special days” curriculum that would ensure a variety of activities for mixed-age groups.

Andrea knew that “Children learn best through hands-on experiences that are meaningful to them. . . . When children are engaged in group activities, . . . concepts become real, rather than arbitrary. Because the ideas and concepts are familiar to them they are no longer abstract.” According to Chambers, a teacher’s main job is to “provide education in the form of meaningful experiences. If our teaching does not mean something to our students, we are wasting both our time and theirs.” We all were convinced that the planned curriculum would fulfill this requirement.

Curriculum Integration Through a Multiple-Intelligences Approach

Schiller and Phipps found that one of the best ways to provide meaningful, appropriate learning opportunities for children is to integrate a multiple-intelligences approach into the curriculum, based on the theories of Howard Gardner, which he introduced in the book *Frames of Mind: The Theory of Multiple Intelligences*. Gardner showed that traditional intelligence-quotient scores (IQs) are not always a true indicator of intelligence because they measure a narrow range of specific skills. A child who scores low in areas measured by traditional IQ tests may be gifted in one or more of Gardner’s eight multiple intelligences.

Gardner realized that the arts had been ignored in the traditional description of intelligence. He concluded that a broader definition was needed, one that viewed intelligence as the ability to solve problems or develop products that are valued in one or more cultural communities. The application of his theory reveals that people can be intelligent in different ways, not only those that can be measured by traditional IQ tests.

More than 100 years ago, Ellen White addressed the concept of multiple intelligences, although Howard Gardner would not develop his learning theory until the 1980s. In the book *Education*, she wrote: “Many apparently un-promising youth are richly endowed with talents that are put to no use. Their faculties lie hidden because of a lack of discernment on the part of their educators. . . . The true educator. . . . will take a personal interest in each pupil and will seek to develop all his powers.”

Schiller and Phipps discovered an ideal way to provide meaningful learning experiences for children through a rich curriculum that integrates subject content with multiple intelligences. “For young children, meaningful learning experiences are active, hands-on, concrete activities. . . . with appropriate materials, equipment, and persons in the learning environment. Classroom environments that use learning centers with thematic instruction engage the full range of intelligences.”

I knew my class already had the framework of the special days’ curriculum in the themes we were celebrating—such as Johnny Appleseed Day, Christopher Columbus Day, harvest farm field trips, Thanksgiving feasts, Adventist Mission Week, Martin Luther King, Jr. Day, Hundreds Day (celebrating 100 days of school), conservation activities, Dr. Seuss’s Birthday, etc. I knew a critical part of instruction is helping children develop “lifelong learner” skills because that was one of the Western Association of Schools and Colleges accreditation agency’s expected school-wide learning results for Redwood. “Themes

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**Gardner’s Eight Multiple Intelligences**

1. **Linguistic Intelligence**
   - The ability to read, write, and communicate with words.

2. **Logical/Mathematical Intelligence**
   - The ability to look for patterns, reason, and think scientifically.

3. **Visual/Spatial Intelligence**
   - The ability to think in pictures and visualize outcomes.

4. **Musical Intelligence**
   - The ability to make and compose music, sing, and use rhythm to learn.

5. **Bodily/Kinesthetic Intelligence**
   - The ability to use one’s body movements to solve problems. Mental and physical activities may be related.

6. **Interpersonal Intelligence**
   - The ability to use social and communication skills to empathize and understand other people.

7. **Intrapersonal Intelligence**
   - The ability to reflect, analyze, and contemplate problems independently.

8. **Naturalist Intelligence**
   - The ability to make distinctions in the natural world and environment.
not only provide a creative curriculum planning tool, they also provide a way for children to connect information." Andrea, Debbie, and I concluded that using a theme approach to our special days celebrations, including integrating the curriculum using a multiple-intelligences approach and mixed-age grouping, would be following best practices for an educationally sound, developmentally appropriate program.

Our first Special Days Celebration was Johnny Appleseed Day, a celebration of the September birthday of John Chapman (Johnny Appleseed), a pioneer and legendary figure in American history and folklore who also exhibited multiple intelligences in the area of Naturalist Intelligence. The celebration started with a preschool-through-2nd-grade Friday-morning assembly. The children arrived at the assembly after recess, decked out in colorful Johnny Appleseed “cooking pot” hats they had made earlier in the week. After opening worship ac-

Resources for Johnny Appleseed Day

tivities, everyone watched a short video of Disney’s classic music video *Johnny Appleseed*. I led the children in a discussion about the different types of food the American pioneers made from apples. Then the children were called up to receive their colorful apple name tags that designated the three mixed-age groups—red, yellow, and green apple tags. The three groups then rotated through the following 15-minute-long stations (the multiple intelligences incorporated into each activity are indicated in parentheses):

**Cooking**

The children cut up sliced apples with plastic knives (Bodily/Kinesthetic), measured ingredients (Logical/Mathematical), and worked in a group (Interpersonal) to make applesauce. According to *The Instant Curriculum*, Schiller and Rossano found that cooking is one of the best examples of a single learning experience that integrates all five senses. Brain research shows that “The more senses involved in the learning experience the greater the likelihood the information will receive a high priority for processing.”

**Crafts**

The children worked together (Interpersonal) to stuff brown paper lunch bags with crumpled newspapers (Bodily/Kinesthetic), after which they used tempera paint to decorate the bags in bright red, green, and yellow apple colors (Visual/Spatial). In *Art Really Teaches*, Velasquez notes that social development (Interpersonal) is enhanced “as children interact during group art projects. . . Children gain appreciation of their classmates’ artwork as they observe one another engaged in art activities and view displays of art in the classroom, school, and community.”
The children tasted red, green, and yellow apples (Bodily/Kinesthetic). Then they made a graph (Logical/Mathematical) depicting (Visual/Spatial) everyone’s favorite (Interpersonal) kind of apple. In *Count on Math*, Schiller and Peterson stated that “Young children learn by doing. When children control, manipulate, and arrange objects, they internalize concepts; they make sense of the world.”

After the three learning station multi-age activities, all the preschool through 2nd-grade groups headed out to the playground. They ended the project-based sessions with a rollicking “Apple Basket Relay,” in which they ran back and forth with small harvest baskets filled with foam apples. There were no winners or losers—everyone had a chance to participate and to cheer on the runners! This relay activity used the children’s Bodily/Kinesthetic, Visual/Spatial, and Interpersonal intelli-
In *Jumping Into Literacy*, Pica found “because you are teaching the whole child, using the physical and social/emotional, as well as the cognitive, you can be sure that the lessons learned will be long lasting and meaningful.” The Grand Finale was a delicious spread, provided by the parents, of every conceivable apple delicacy; from apple juice and the applesauce the children had cooked themselves, to cinnamon apple bread and frosty apple fritters—plus apple turnovers and apple pie!

During the nine-year journey, we have noticed that an increased percentage of parents of community preschoolers have chosen to continue the education of their children at Redwood Adventist Academy. One community mother, at the end of her child’s preschool days (whose son has continued on from preschool and is now a 7th grader), stated that she wouldn’t think of sending her son to a different school because he was so attached to the kindergarten and 1st-grade teachers. The only contact he had had with the elementary teachers while in preschool was through special days’ activities. And the only contact his parents have had with the elementary teachers was through volunteering to help with the special days while he was in preschool.
We knew that in our celebration of special days activities—with themes that integrated the curriculum using a multiple-intelligences approach and mixed-age grouping, we had opportunities to integrate our curriculum in ways that were both meaningful and realistic to children. The use of mixed-age grouping helped students develop leadership and empathy for others. We were not only able to address the needs of the whole child in ways that supported the value of each intelligence, we were also able to provide activities that honored and respected the many talents and abilities of our mixed-age students. This enabled us to teach many disciplines in an interconnected and natural way. We realized no one intelligence exists by itself because there is interaction between and among intelligences so “people have the capacity to develop all their intelligences if given appropriate encouragement, enrichment, and support.”

On Friday, September 26, 2014 (the anniversary of the birth of John Chapman), the lower-grade students of Redwood Adventist Academy celebrated Johnny Appleseed Day—with three multi-age groups (unfortunately, the preschool closed due to the recession). They joyfully rotated from room to room making an Apple Basket craft; listening to a picture book read-aloud about John Chapman, after which they played “You Are the Apple of My Eye” (a compliment game); and making homemade applesauce! Elisa Campbell (the kindergarten teacher for the past six years at Redwood) and I, along with six parents, worked together to make it all happen; and several younger siblings participated as well. Everyone sat together on the green picnic tables and enjoyed sampling the various apple goodies provided by all the families. As one of the upper-grade students whose family came from the community into Redwood through the preschool (and has three children attending in grades 3-5) wistfully remarked as his class passed by the happy crowd, “Is it Johnny Appleseed Day? I remember when we used to do that. . . . They are so lucky!”

This article has been peer reviewed.

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NOTES AND REFERENCES
4. Ibid., pp. 2, 3.
6. __________, “Nongraded and Mixed-age Grouping in Early Childhood Programs,” op. cit., p. 3.
19. Ibid.
Most Seventh-day Adventist teachers realize that they are part of an ongoing “evangelistic series.” In fact, yearly church subsidies for small, one-constituency schools may well be equivalent to the cost of a moderately funded evangelistic series in the same community. Adventist teachers realize that a major goal of church schools is to support parents and churches in introducing their children to Christ. The importance of early introduction to the Bible is highlighted by Solomon in these well-known words: “Remember now thy Creator in the days of thy youth.”¹ In Proverbs, Solomon has the personification of wisdom remark: “I love them that love me; and those that seek me early shall find me.”²

Ellen White also encouraged these activities. She wrote: “Children of eight, ten, or twelve years are old enough to be addressed on the subject of personal religion.”³ She recommended not waiting until children reach adulthood before introducing themes relating to redemption and salvation, but instead, teaching them early to comprehend biblical truths. “If properly instructed, very young children may have correct views of their state as sinners and of the way of salvation through Christ.”⁴

For this reason, Adventist teachers must find ways to creatively incorporate biblical teachings into worships and Bible classes, as well as the other subjects. Yet, like many teachers, I have often wondered how to help ensure that students make a definite choice for baptism, and not just acquire doctrinal instruction and Bible facts.

One day, in the Southern Tidings, the official publication of the Southern Union Conference of Seventh-day Adventists, I discovered an article by Jamie Francisco,⁵ a teacher in a one-room school like mine. She reported on an evangelistic series for children, led

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