

Multiage-Education.Com

Nuts & Bolts: Multiage Information Meeting Handout

Multiage Handout

Russell Yates and Heidi Mattern

At the first information meeting, my former teaching partner and I gave the following to all parents interested in our classroom. It gave a concise summary of our program and complimented our initial presentation well.

Multiage Classroom for Second and Third Graders

Heidi Mattern and Russell Yates

A multiage education program is a union of an organizational structure and unique combinations of teaching and learning strategies. The way learning occurs is made possible by the multiple age structure. Two teachers working together with the same group of children is referred to as “teaming” or “team teaching.” When combined with a multiage program the learning environment can be greatly enhanced through the collaboration of the two teachers.

Why Multiage?

- Allows for flexibility in the grouping of children according to need, ability, or interest; not just by age.
- Problems associated with a yearly transition from one grade to another can be overcome. The teacher has a nucleus of children, trained in the details of the class organization who keep it going while newcomers absorb it.
- As the student-teacher-parent relationship develops over a longer period of time, students will receive greater support for their success in school.
- A more natural learning situation is established. Children work at their own pace. Their program is not geared to the work of a single year but can be adjusted over two or more years.
- Benefits come to the older children from the quality of leadership and responsibility they develop.
- Young children are stimulated intellectually by older children.
- Children have a broader social experience with increased opportunities to lead and follow, to collaborate and to make stable peer relationships.

It is our goal to use instructional strategies that:

- Change the teacher's role to facilitator rather than the source of knowledge.
- Produce cooperation.
- Allow students to learn from each other through peer tutoring.
- Give students responsibility and independence in both learning and behavior.
- Build understanding of action-consequence relationship.
- Provide choice to the student in different areas of learning that will reflect learning-style differences.
- Allow continuous learning through the use of learning environment.
- Teach goal-setting from an early age.
- Build leadership skills in all students.

Team Teaching

- Allows for greater flexibility in grouping and instruction.
- Gives students a variety of approaches.
- Models collaboration.
- Allows for greater observation of students in order to better meet their needs.

One Page Explanation of Multiage Education

by John Tapper

What is a “multiage”?

If one thousand eight year old students were asked to do a task the majority of them would perform at a given level. This level is indicated graphically by the bulge on a bell curve. It represents “grade level” or what is considered acceptable performance for children who range in age from “just eight” to “almost nine” (depending on school admission requirements). Graded curriculum tends to be geared to this particular level of performance. Published curriculum supports this level. Expectations reinforce the idea that this is where a child should be.

A good metaphor for this approach might be a staircase. First you get everything you need on step one and then you go onto step two. This continues until you reach the end of the staircase (If there is an end).

In a multiage classroom we would use the learning metaphor of a path. Students come to us somewhere along the path. Sometimes they run swiftly, other times they seem to wander slowly. When they get to a particular place in the path, they leave us.

Multiage learning is effective academically because less time is spent each year getting to know the individual strengths of students. Instead of spending the first few weeks getting acquainted every year, teachers and students jump right in. Since nongraded or multiage programs focus on individual students in a diverse setting the curriculum is geared to everyone on the curve, not just those in the middle. This helps special needs children who know that they can fit in and challenge talented children because “grade level” is no longer enough to get by. If you look on the wall at writing in a multiage classroom you can see everything from one sentence stories to stories with many pages and sophisticated language. Everyone fits in.

Finally, being a multiage program lets kids grow into responsibility. When they’re little they are taken care of- they get help with spelling, fire drills and tying their shoes. As they get older they learn they must do this for others. There may be no special program, or approach but students learn through the example of others that they must help those who are younger or less capable.

Research Handout

Summary of Research on Benefits of Multiage Classrooms

Professor Barbara Pavan reviewed 64 research studies on nongraded (multiage) schools. Pavan found that 58% of those students in multiage classes performed better than their peers on measures of academic achievement. 33% performed as well as their peers, and only 9% did worse than their peers.

Pavan also found that students in multiage settings were more likely than their peers to have positive self-concepts, high self-esteem, and good attitudes toward school. Her review of the research also indicates that benefit to students increase the longer they are in a nongraded setting, and that “underachieving” students also benefit from being in multiage classrooms. (This research summary can be found in the October 1992 issue of Educational Leadership, pp. 22-24.)

Parents are often concerned that older children in a multiage setting will not benefit as much as younger children. Research shows, however, that when older students teach information and skills to their younger classmates, their academic performance, and even IQ scores, dramatically improve. The research of Arthur Whimbey (in his program T.A.P.S: Talking About Problem Solving) showed that when students were routinely given the opportunity to teach someone else, their scores on IQ assessments improved as much as eighteen points.

In another study done in the 1960s, underachieving high school students who act as reading tutors for younger students improved their reading scores by an equivalent of two years, in just six months' time. (From the Nov. 1994 edition of Educational Leadership, p. 58)

Educational research indicates that students benefit both academically and emotionally from being placed in multiage classrooms.

(compiled by H. Mattern and R. Yates-3/95)

Learning Theories that Support Multiage Education

The learning theories we studied in college along with our experiences as educators have help define our own philosophies as teachers. If you are an experienced educator it is good to revisit the learning theories that are at the base of everything you do. If you are just beginning your career, then the learning theories will help you define which educational practices will best help you help your students.

There are a number of theories that support multiage practices and there are also some that don't. Listed below are some of the major learning theories that support multiage educational practices along with links to some great web sites that provide more information about each of them.

Jean Piaget's *Cognitive-Development Theory* gives use the background for developmentally appropriate practices. The idea that children's thinking is qualitatively different than adults comes from Piaget. His theory also shows us hat children need to construct or reconstruct knowledge in order to learn and that they also need rich opportunities to interact with the physical world with their peers.

Jean Piaget-Intellectual Development

<http://www.sk.com.br/s-piaget.html>

How Do People Learn? Piaget's Development Theory

<http://www.funderstanding.com/piaget.cfm>

Genetic Epistemology (J. Piaget)

<http://www.gwu.edu/~tip/piaget.html>

Jean Piaget's Theory of Development

<http://facultyweb.cortland.edu/~ANDERSMD/PIAGET.HTML>

Lev Vygotsky's *Sociohistorical Theory of Psychological Development* shows us the importance of language and social interaction for cognitive growth. His ideas of the zone of proximal development and scaffolding are at the heart of multiage practices.

Social Development Theory (L. Vygotsky)

<http://www.gwu.edu/~tip/vygotsky.html>

Cognitive Science: Links for Lev Vygotsky

http://www.cudenver.edu/~mryder/itc_data/cogsci.html#vygotsky

Beyond the Individual-Social Antimony in Discussions of Piaget and Vygotsky

<http://wwwemory.edu/EDUCATION/mfp/VygColeWer.html>

Albert Bandura's *Social cognitive Learning Theory* is important in that it shows us that much of learning happens through the observation of models, a staple of multiage classrooms. Intertwined in the theory is also the concept of self-efficacy.

Social Learning Theory (A. Bandura)

<http://www.gwu.edu/~tip/bandura.html>

Bernard Weiner's *Attribution Theory* helps us understand how students are motivated internally and how we as educators can help students learn because they want to learn.

Attribution Theory in Action

<http://www.as.wvu.edu/~sbb/comm221/chapters/attrib.htm>

Understanding the Multi-Age Classroom

Where did Multi-Age Education Originate?

Multi-age education was very popular and widespread in the British Infant Schools almost thirty years ago. The English put their young children in large rooms combining five-, six-, and seven-year-olds. Their methods were those of a laboratory school. The rooms were full of projects, explorations, and experiments created by students and guided by teachers. By American standards these classrooms seemed extremely messy and noisy. In each class, the oldest children acted as tutors and leaders part of the time in an attempt to free the teacher so he or she could spend more time with individual students and carefully guide the small number of children who were just beginning to read. Children had an extreme amount of freedom. However, along with that, they also had an immense responsibility for their own learning.

Old Ways Are New Again

The One Room Schoolhouse

Multi-age classrooms are not new in the United States. Many older adults once attended one room schoolhouses. These often served students from eight or more different grade levels in the same room. These small schools shared some of the philosophy of modern multi-age classrooms but not the physical room arrangement. Younger students learned a great deal by listening to the lessons of older students. Some students also served as tutors. All of the children had to take responsibility for their own learning since they spent most of the day working without the teacher's direction. They often presented their lessons by reciting aloud. The recitations were intended for the teacher, but the entire class benefited by hearing them.

Flexibility

Today's multi-age classrooms do not look like yesterday's traditional ones. They do not have rows of desks all facing the same direction. The rooms are filled with learning stations. There are tables and materials in every area. The furniture is moved around to facilitate different themes, seasons, and activities. For example, a large table may be part of the Home/Dramatic Play Center for housekeeping activities. It may then be moved to the Math Center for recording

open-ended math projects, while the Home/Dramatic Play Center becomes a store. A visitor to a multi-age classroom should get the impression that this is a child-friendly setting, a room that invites students to explore and learn while having fun.

Noise Level

Not so many years ago, a noisy room was always considered to always be nonproductive and out of control. The opposite is now true. In today's classrooms, children are expected to talk to and learn from each other. With the use of learning centers, cooperative learning, and whole language, classrooms just became noisier as students worked. Teachers and administrators realized that students could not develop oral language skills by being quiet all day. Instead of seat work, children now read aloud to partners or practice reading aloud into a tape recorder. Sometimes they sing while reading a song chart in a learning center. A child may even sing or talk to a class pet. This is noise with a purpose. Active learning is developmentally appropriate, and it is very good for children. However, random off-task behavior is not tolerated because it is nonproductive and can lead to confusion.

Characteristics of a Multi-Age Classroom

Combining Two or Three Grade Levels

The possible combinations are first and second grades, second and third grades, or third and fourth grades. If you intend to add kindergarten to first and second, do not add it until the second year. For a quick start, combine first and second in one classroom, and third and fourth in another. Place these classrooms side by side. A kindergarten classroom should also be nearby so that the five grade levels can function together as a mini-school. This involves going to lunch, physical education, music, art, and assemblies as a whole group. On Friday afternoons all grade levels combine in each classroom for special projects and presentations. Teachers of kindergarten, first-second, and third-fourth classrooms meet together weekly to share ideas and make plans.

Developmentally Appropriate Activities

A multi-age classroom is an active place. Children do not sit in rows of desks completing worksheets. Students spend much of their time working with real materials that foster discovery-type learning. Young children who are having difficulty with pencil and paper tasks are not forced to create products that are more appropriate for older children. Instead, they are expected to work with pegboards, clay, paint, puzzles, chalkboard, and marker to improve their fine motor skills. From these children, oral responses are considered just as important as written ones.

The teacher's evaluation is based on the child's ability to learn from the environment instead of a series of graded worksheets. Choosing activities that are "developmentally appropriate" means teaching to meet all the needs (intellectual, social, emotional, and physical) of the child. Learning takes place in a prepared environment with students working on projects in small groups.

Portfolio Assessment

Arbitrary grades are no longer assigned. A portfolio allows teacher, administrators, parents, and peers to examine a broad sampling of each student's work. Emphasis is on progress and growth instead of a grade level standard. Anecdotal records are used to document achievement, including awards from sources such as art fairs, local contest, sciences fairs, and an interscholastic league.

Thinking Skills

Multi-age classes emphasize the development of multi-dimensional skills that will prepare students for adulthood. Problem solving is at the top of the list, as apposed to rote memorization. This includes solving problems in all types of real-life situations, no just in math. Oral language skills have the same importance as written skills. Planning, organization, and self-evaluation are taught along with the three R's. Use of Bloom's Taxonomy (shown below) is encouraged, especially at the higher levels. Students are expect3d to analyze, create, evaluate, and make decisions. Lesson plans should reflect opportunities for problem solving, oral language, creativity, and analysis.

Bloom's Taxonomy

- **Knowledge:** Simple recall of details
- **Comprehension:** Understanding meaning
- **Application:** Extend learning to new situations
- **Analysis:** In-depth study of parts
- **Synthesis:** Create something new based on learning
- **Evaluation:** Appraise, critique, or judge

Emphasis on Process

In multi-age classes, knowing *how* to do something is just as important as taking a test or writing a composition. Vocabulary sequencing skills and real-life successes are enhanced by hands-on learning experiences. A variety of learning opportunities is necessary to produce will-rounded students. Good students know how to use many learning tools, including cameras, computers, microscopes, and art supplies. It is more important to know how to set up a scientific experiment than to recreate a perfect experiment. The ability to analyze mistakes is an important skill, since a great many scientific discoveries are the reasu7lts of mistakes. A truly educated person should be able to analyze unexpected results and draw insightful conclusions, since this process is a source of new knowledge.

Making Instruction Relevant

The use of experts from the real world, as resource persons, is emphasized. Some examples include: a music demonstration given by a guitar teacher, a presentation and display given by a person whose hobby is collecting Native American artifacts, a display shown by a woman whose farm yielded many museum-quality fossils. Numerous field trips to ordinary places like printing shops and post offices are encouraged. Of course, it is also important to visit historical sites, museums, and zoos. Care should be taken to choose instructional materials that reflect real-life problems and situations, the genuine interests of children.

Guided Choices

Each day students make choices about what center to visit, what materials to use, which books to read, and how to present their projects. In some multi-age classrooms there are now assigned activities in the learning centers. This gives children the freedom to explore their interests and individual learning styles. With this freedom comes the responsibility to discuss and explain the chosen activity or the created product. This helps children to grow into adults who know how to make decisions. This does not mean that teachers cannot assign work to be done. Student choices can be limited. Constant teacher observation and feedback assures that students learn how to make choices.

Whole Language

Children learn to read in the same way that they learn to talk, by repeated exposure to words. It is better to reward approximations than to emphasize and grade mistakes. This does not mean that phonics and reading skills are not taught. They are integrated into interesting reading materials in a meaningful way. Students do not have to read specific material but may choose books that suit their interests as well as reading level. However, it may be necessary to limit choices to increase the chances for student success.

Continuous Progress

Every effort is made to match the learning to developmentally appropriate tasks. A student who has not learned to count is not expected to add and subtract. Some students may read on a second grade level and do math on a first grade level. Children with special interest or abilities in a particular area, such as art or music, may work with older students. Since children work at their own rate, retention is never considered. Students who did not master all the objectives traditionally done in the first grade will not be required to do all the first grade work over again. They will begin the next year at the point at which they stopped the year before. Continuous progress requires a high level of individualization.

Integrated Curriculum

Real life is not divided into separate subject areas. Teachers of multi-age classrooms rely on thematic units to extend learning across the curriculum. By using a theme, a teacher can plan

activities throughout the day that lead to a cohesive, in-depth study of the topic. Students will be practicing and applying their skills in meaningful contexts. Consequently, they will tend to learn and retain more. Both teachers and students will be freed from a day that is broken into unrelated segments of isolated drill and practice.

Flexible Grouping

Groups may meet for a variety of purposes with and without the teacher. Grouping may be based on interests, learning needs, cooperative learning, etc. Students often help one another and work in mixed-age groups. For example, students in one science project group may be preparing books on clouds. The topic is the same for all of the students in that group, but the teacher will have different expectations about the level of the finished products, depending on each student's age. Flexible groups are sometimes smaller than traditional reading groups and change membership as student needs and interests change.

Modeling

One important feature of multi-age classrooms occurs with little effort on the part of the teacher. If older students and younger students are in close proximity while engaging in learning activities, the younger students will seek to imitate the behaviors modeled by the older students. This type of learning is often observed in homes when a younger sibling watches his/her older brother or sister use a computer and then suddenly demonstrates advanced computer knowledge. Some children have come into kindergarten already knowing how to read because they played school with older siblings. Direct tutoring by the older child is not required. It is only necessary to model the desired behavior or play school with the younger child. Nothing is more interesting to a child than another child who has the skills that he or she wants to acquire.

