# Articles about Multi-age Education

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Early years curriculum materials

Multi-age learning and teaching
Learning and teaching in a multi-age classroom

In Queensland there are many schools that have mixed-age classes. Some of these schools have chosen to organise their classrooms by deliberately grouping children in multi-age groups. Multi-age grouping is just one of the devices used to organise classrooms in Queensland schools. It is the deliberate mixing of children from various age groups of more than one year in the one class. Multi-age groupings are also known by other terms, e.g. vertical, family and heterogeneous groupings.

What are the benefits for teachers and children?

Research has highlighted the benefits for both teachers and children when learning and teaching in a multi-age classroom. Benefits include more holistic, child-responsive curriculum practices that consider the understandings, capabilities and dispositions that children need for future work, e.g. working in diverse environments that seek workers who are multi-skilled, literate, cooperative, creative, adaptable, independent and resourceful.

Children and teachers usually have the opportunity to work together for more than one year, which enhances continuity of learning and the forming of positive relationships with teachers and children, and between children.

Because of the mixed age group, the younger children benefit from the positive models of older children, often aspiring to their levels of capability. At the same time, the older children rise to the expectations of the younger children and teacher, being very responsible and having opportunities to lend and use their expertise.

Social constructivist and critical perspectives of learning and teaching (upon which the Early Years Curriculum Guidelines is developed), affirm the use of a multi-age classroom approach. Strategies used in this approach include:

- recognising and building on children’s diverse backgrounds, understandings and experiences
- understanding how children learn
- building connectedness between learning experiences
- acknowledging children as unique individuals with diverse and complex identities
- recognising children as active “agents” of their own learning.

What does learning look like in a multi-age classroom?

Children, teachers, parents and other partners:

- acknowledge and engage with each other’s diverse knowledge through child-initiated and teacher-initiated learning experiences
- talk about, represent, reflect on, and begin to evaluate aspects of their learning with others
- work on activities independently and in a range of groupings, e.g. pairs, small groups, whole group
- build co-operative learning skills, e.g. sharing, turn-taking, listening, mentoring, negotiating, considering alternative points of view, mediating and resolving conflict in social situations
- work with others at times who have similar or different capabilities, needs and interests to deepen and extend understandings and make links between prior and new experiences
- actively investigate topics of personal interest, using inquiry-based learning to aid meaning-making about aspects of local and global communities
• explore a range of thinking skill programs and strategies to assist in investigation of topics/problems of personal interest, e.g. learning styles/capabilities (De Bono’s “Six Thinking Hats” and Gardner’s “Multiple Intelligences”); PMI (plus, minus, interesting); what if?; sort/group/label; role play; and mapping (mind maps, concept maps)
• engage purposefully with literacies that are reflective of children’s everyday lives, e.g. print and electronic texts, environmental print and information technologies
• consider their roles as members of a “community of learners” where risk taking, making choices, making errors and challenging thinking are seen as important to aid co-construction of learning
• assume role of “mentors”, facilitating and scaffolding each other’s learning
• reflect on their sense of self as lifelong learners, building understandings about what, how and why they learn.

What does teaching look like in a multi-age classroom?
Teachers, parents and other partners:
• use the links between levels of curriculum frameworks to plan a seamless curriculum
• view children as capable, inquisitive learners who construct meanings about their world in partnership with others
• view learning as an interconnected, ongoing, lifelong process that is not limited to a rigid, prescribed curriculum, but one which is responsive and which dynamically reflects the learning community
• describe learning as “phases of learning”, rather than as “age or year level appropriate” learning
• use authentic assessment practices that engage with children’s diverse understandings, capabilities and dispositions, and empower and assist children to begin to assess their own and others’ learning
• foster ongoing, authentic partnerships that engage with children’s families, e.g. siblings may also be members of the multi-age class, and parents, family and other community members are actively involved in participating in the learning experiences with children and aspects of curriculum decision making
• foster ongoing, authentic partnerships that engage with other classes and school/community members, e.g. active involvement in school/community activities such as buddy class visits, Under Eight’s Week, Education Week, Book Week, school assemblies, environmental conservation and social/cultural activities
• place an emphasis on how children learn and the types of learning environments and contexts for learning that support and extend this learning to aid children’s growing independence and “sense of self” as learners
• investigate alternative teaching approaches and strategies through action research and professional development as part of critical reflection on teaching practices
• actively facilitate children’s learning by investigating diverse ways of knowing, thinking and doing
• scaffold children’s learning in a range of settings and contexts for learning using explicit and diverse techniques, e.g. questioning, prompting, modelling, demonstrating, comparing, contrasting, generating, clarifying and confirming
• work purposefully with children in selected (according to capabilities, needs and interests) groups or individually to scaffold their learning
• acknowledge and engage with “continuities”, i.e. deliberate consideration of the continuity of programs and curriculum to aid children’s transition between education and care contexts.

What does the research say about multi-age learning and teaching?

• Teachers concentrate on what children can do, rather than what they can't do. There is never any fear of failure, which builds confidence.
• Competition is removed from the classroom. There is no comparison with other children and children are always ready to “have a go”.
• Children are allowed to make choices and express themselves in many ways. Creative activities are common.
• Children’s ideas are welcomed, and can be tried out. Children feel good about themselves, which makes an excellent environment for learning.
• There is freedom of choice and exploration of many ideas, which makes learning an exciting and real part of children’s lives.
• Children enter a class where there are older children, so settling in is much easier. Older children are usually delighted to help younger ones, and this helps them to feel very worthwhile and important. Confidence grows.
• Children mix freely and are encouraged to work and play together. They learn the joys of cooperation, which leads to good citizenship.

The following organisational strategies are useful for multi-age teaching and learning:

• schedules and routines that promote clear, predictable instructional patterns, especially those that enhance student responsibility for their own learning and flexible use of time
• use group learning experiences across and within year levels
• develop skills and strategies that allow children to have a high level of independence and efficiency in learning individually or in combination with others
• develop strategies and routines where children serve as “teachers” to others within and across different year levels (peer tutoring)

The Multiage Concept Explained

A multiage classroom is not simply a group of different aged students placed in the same classroom. Instead it is a well organized and thoroughly thought out program designed to take advantage of the natural diversity created.

The following article was written by experienced multiage educator Marion Leier. With her permission I have posted it here.

The Multiage Classroom
by Marion Leier

Multiage classes have intrigued me for over 30 years, and have inspired me to continually learn and adapt new strategies to optimize learning with my students. Sometimes this has meant that I have had to persevere through negative reactions due to misconceptions about multiage pedagogy, as well as taken on work adapting graded curriculum materials to suit my classes consisting of more than one age group. Yet, given the choice of class structures, I would much rather teach a multiage class than a single grade.

What is a multiage class? Any class comprising of more than one age or grade level is often mistaken as a multiage class, when in fact, it may be a split class or a combined class, put together to solve number bulges in the school population. As long as the teacher is grouping the children according to their age or grade for instruction, assignments, and expectations, the multiage concept will be non-existent.

Another common mistake is when school staffs intentionally place low performing older students in a class with high performing younger students. This action, based on teaching for sameness is not beneficial for students. The social stigma of being placed in such a class clearly identifies children as 'smart' or 'slow' (depending on their age) making it uncomfortable for children to socialize within the school community and to develop a healthy self esteem.

A successful multiage class is formed by placing together a balance of numbers of students of different age groups with a range of achievement levels. The teacher plans instruction and assessment expecting and celebrating diversity within the class.

I don't use the term multi-grade because my philosophy of teaching moves away from grades. This archaic graded system that we cling to was introduced to North America by Horace Mann in the mid nineteenth century to produce students that would successfully support a factory model of economy. Even though we have moved into the Information Age, our education system continues to use this traditional framework.

In Nova Scotia, demographics and limited education funding has created many multi-age classrooms. Preparing teachers who have grown up in a graded system to work with the multiage concept requires a paradigm shift in their teaching philosophy.
The multiage concept is child centered. As a result, the teacher is continually shaping and developing the program to suit the students, instead of trying to 'fit' the children to a prescribed set of outcomes. Unless the teacher has done considerable research and thinking about multiage pedagogy, he/she unintentionally may make decisions that are contradictory to the philosophy. For example; grouping students by age for instruction or giving expectations in assignments according to a particular age group, does not take advantage of the multiage concept.

I have learned over the years how critical it is to carefully explain the multiage concept, because many people have interesting schema in their minds of what goes on in this kind of classroom. Some parents have avoided multiage classrooms for their child because they desire more structure, when in fact; well run multiage classes are highly structured.

There is shared control between the teacher and students. Students earn their freedom according to their level of self discipline and motivation for self initiated learning. They are accountable to the teacher and to their parents in the student-led conference held each term.

Another common belief is that multiage classrooms benefit the younger age group, but short change the older students. This couldn't be further from the truth! From my experience as a multiage teacher and mother, it is the oldest age group that benefit the most in a multiage class. They have the benefit of continuing their learning with the same teacher, of developing leadership positions within the class community and reflecting on their academic progress as they revisit basic concepts with their younger classmates.

The more advanced student is freed from the constraints of a graded curriculum when the teacher is designing a program from a child centered perspective. At the same time, children that would struggle in a traditional graded classroom experience success when given more choice in the level of daily activities. An experienced multiage teacher learns to provide a balance of challenge and success for all students.

One of the biggest challenges facing a multiage teacher is designing curriculum that is in line with the Department of Education. …. It makes more sense to integrate topics, choosing fewer for the year, but giving adequate time for each one. The best framework that I have found for integrating topics is The Project Approach (Lillian Katz and Sylvia Chard). This strategy allows me to be accountable as I choose the topic (based on provincial outcomes), but gives students opportunity for individual or collaborative inquiry according to their interest.

Teaching strategies that support brain-based learning and emotional intelligence are a perfect fit with the multiage concept. I believe that there is no better environment in which children can learn than with an absence of threat, opportunity to make appropriate choices, pursue meaningful content, work collaboratively and have adequate time to complete their work. As a multiage teacher, I gravitate toward a democratic classroom to give my students experience in decision making and to take on the responsibility as community members. They learn to assert their voice and listen to other perspectives.

It is critical that multiage teachers are well organized and knowledgeable of developmental stages of learning. Instruction and grouping is based on the documentation the teacher has collected about the students' achievement, and because students are learning at different rates,
the teacher needs to monitor and document progress continually. Using authentic forms of assessment such as journals, reflections, responses, and conferencing keeps me 'tuned in' to my students' thinking and understanding. At the same time, I encourage the children to become more aware of their learning through their reflections and self-evaluations.

I know that portfolio assessment requires a huge amount of time, but it is a powerful strategy that contributes to the development of self-initiated learning.

The atmosphere of a multiage class has been the element that has kept me doggedly engaged in learning how to develop appropriate teaching strategies. When I witness the cooperative attitude of the students, the peer tutoring that happens naturally and frequently, and the joy expressed by the children, I know that this is a more powerful, respectful way to teach children than sorting them into age groups that places them in a competitive norm-referenced situation.

Research that I have found has been favourable about multiage classes. When compared to children in single age classes, children in multiage classes are superior in study habits, social interaction, self-motivation, cooperation, and attitudes toward school. Academically, children perform just as well or even better than those in single grade classes. (Gajadharsingh 1991).

I believe that conditions in Nova Scotia schools are 'ripe' for the multiage concept. It will take time and effort, but our kids are worth it!

My Thesis

Michelle Pancoe

http://multiageinfo.dnswh.com/thesis.htm

Introduction

When I was six years old I went to work with my mom for the day. She was a teacher, and I spent the day in her classroom. Since then, I have wanted to be a teacher. A few years ago, my mom began researching multiage education. The topic interested me, so I paid close attention. Since my mom and three other teachers started a multiage team two years ago, I have learned a considerable amount of information on the subject. The more I read about the subject, the more I wanted to know. I discovered there was a lot of information available on the topic, but it was not easy to find. Last summer I spent four days attending workshops at a national conference on multiage practices.

As I examined the philosophies and premises of multiage education, I became aware of quite a bit of confusion about the term and its meaning. Every teacher has their own conception of what multiage education is and each is unique. I decided to make it the topic of my Honors Project to help alleviate some of that confusion.

This thesis is intended to serve several purposes. First, I would like it to be a resource for teachers and administrators. I think multiage education is a very sound educational practice. I believe the term has negative connotations because many teachers and administrators try to implement multiage classrooms without sufficient research or planning. Educators are often criticized for jumping on one bandwagon after another without scrutinizing new programs before trying them. It is better to research multiage education before trying it than making a quick decision and experiencing unsatisfactory results. I also hope parents read this thesis because I think information will assuage many of their concerns about multiage classrooms. Many parents do not want their children to be the guinea pigs of the newest fad. Parents who are informed about educational programs can make better decisions about what is best for their children. Finally, I wanted to create a document which provided an overview of the topic and which could be readily understood by people outside of the field of education.

After establishing these goals, I determined they could not be realized if I completed a traditional thesis which remained on the shelves in the university library. I decided I wanted to publish it on the Internet so it would be readily accessible to millions of people. I also began asking teachers and parents what types of information would be useful to them, so my website could included more than just my thesis. The most common request was for lists of books and websites, so I have included those. A request I found interesting was the desire to talk to people who are teaching in multiage programs. To respond to that, I compiled a list of teachers willing to share
their experiences and included that on the website as well. I would like to thank Dr. Katherine Wiesendanger, my thesis committee chair, as well as committee members Dr. Sharon Morrison and Dr. James Curl for all of their help. Also, I would like to express my gratitude to Dr. Paul Strong, chair of the Honors Program. My mom deserves a special thank you for hours of editing and proofreading.

This thesis begins by examining the background of multiage classrooms. It explains how and why the graded system began and the series of alternatives which have been explored. Programs which are often confused with multiage classrooms are clearly defined and the differences illuminated. This thesis also explores advantages and disadvantages of multiage education. I have tried to include affects on teachers, students, and parents. Finally, I have discussed some of the obstacles to the implementation of multiage classrooms.

I believe the effects of multiage education are overwhelmingly positive. Students who learn in multiage classrooms have more positive attitudes toward school and better social skills than children in traditional graded systems. Many of the criticisms of multiage education are based on misconceptions, or can easily be avoided with proper planning.

Multiage classrooms are not easy to implement. They require a lot of prior planning and research. Many teachers are reluctant to abandon their current teaching style to try something different. As a country, we need to set priorities for our children’s learning and determine the best way to achieve those priorities. If we are trying to achieve a more collaborative society where people help each other learn, multiage classrooms may be a step in the right direction.

Multiage education is not a impulsive innovation. It has existed in different forms since the advent of the education system in the United States. Both students and teachers benefit from experiences in multiage classrooms and many of the potential disadvantages can be avoided or corrected. I believe multiage education is a better way to educate children than the traditional graded system.

Multiage Education Is...

Before examining strengths and weaknesses of a multiage program, it is necessary to share a common definition. Multiage classes are created when children of different ages and grade levels are intentionally combined in a single classroom to realize academic and social benefits. At the end of each year, the older students move on to the next grade and a new group of students enters at the lower grade. This provides the opportunity for students to spend more than one year with a teacher or team of teachers.
"Multiage classrooms are nothing new. They’ve been around since the days of the one-room schoolhouse, when children of many ages studied side by side under the same roof with the help of one teacher. But in the 1990s, multiage classrooms have taken on a dynamic new meaning" (Bozzone 8).

This classroom situation creates an atmosphere where the students and teachers spend more than a single year together in a mixed-age learning community. The benefits experienced for students in this type of program are as a result of both learning together in a mixed-age group of children and of the extended time with a single teacher.

Hundreds of years ago, students learned in a one-room schoolhouse. In such a setting, students of all ages were educated together by the same teacher for several years. The one-room schoolhouse provided a community atmosphere where students worked and learned together (Grant, Johnson, and Richardson Multiage 20). A graduate of one of the last one-room schoolhouses in the United States said: "Success for many of us was a natural consequence of that environment" (Heynen). He added an anecdote: "When the teacher called, 'Eighth-grade history,' and the eighth graders walked forward, we might have heard about the Constitution, for example. Those of us in the lower grades would have been given that lesson peripherally, indirectly, many times before we were taught it directly" (Heynen).

Graded education did not appear America until 1843 when Secretary of the Massachusetts Board of Education Horace Mann visited Prussia and was impressed by the graded system. The concept of separate grades was born of administrative practicality and puritanical traditions (Anderson 28). At that time, the United States was beginning the process of industrialization and the idea of mass production was extended to the educational system. Dividing students into grades enabled teachers to specialize on a specific portion of the curriculum, and paved the way for the advent of the graded textbook. The graded system of education made the delivery of curriculum more efficient than the one-room schoolhouse system.

Although it addressed curricular issues, graded education was not exempt from challenges. In 1890 C. W. Eliot, the president of Harvard University, claimed that the "grouping together of children whose capacities are widely different" was not only "flying in the face of nature" but also the "worst feature of the American school" (Osin and Lesgold). In 1909 Maria Montessori, the first Italian woman to become a medical doctor, wrote about her success overseeing The Children’s House in Rome (Merrick 8). Her classes were purposefully composed of students aged three to seven and focused on individualized instruction. This structure provided opportunities for younger students to learn from watching older students. By 1913, Montessori’s methods became the new trend in Europe and America, supplanting some graded schools. By 1916, there were 200 authorized Montessori schools in the United States (Merrick 8). Montessori
Schools in the United States were centered around the idea that students learn at their own rates. Interest in Montessori schools diminished by 1918 and the graded system again prevailed in the United States. The multiage concept purported by Montessori did not reemerge until the 1960s (Merrick 8).

While multiage classes were not common in the United States after 1918, other countries were experimenting with the configuration. After World War II, British educators changed the way their primary schools were organized. They divided students into three-year groups and students remained with the same teacher for three years (Cornell 9). Then, in the 1960s the nongraded movement once again gained support in the United States. At this time, many schools combined students in mixed-age groups, but with negative results. "Because most educators were never fully trained in the philosophy of multiage education, there was a lot of anxiety and frustration" (Grant, Johnson, and Richardson Multiage 31). The impetus for the movement in the 1960s was to save money. It was not accompanied by necessary changes in philosophy or teaching practices. "Education reforms based solely on financial considerations rather than a pedagogical basis usually have a short shelf-life" (Grant, Johnson, and Richardson Multiage 31).

After these unsuccessful attempts at nongraded education the term acquired negative connotations. Therefore, educators shied away from attempting to establish similar programs and returned to the traditional graded system because there was no apparent alternative. Although the graded system did not effectively meet the needs of American children and was the subject of criticism, it prevailed because it seemed to be the best option available at the time. "Since the graded structure came into existence in the Quincy Grammar School in 1848, some people have been critical of it. Today, as in the past, critics feel that schools should be focused on the needs of children" (Grant, Johnson, and Richardson Multiage 120).

Educators continued to search for a viable alternative to the graded system. A movement that began with a few teachers establishing multiage classrooms soon spread to schools, districts, and finally states. According to some educators: "Multiage education is the biggest systematic change in education in the last 140 years" (Coniglio ). In July 1990 the Kentucky Education Reform Act took effect, mandating multiage classes for all primary grades (Colwell-Cornett 33). Since then, multiage classes have been mandated in Mississippi and Oregon, as well as Kentucky, and programs are developing in Pennsylvania, Florida, Alaska, Georgia, California, Texas, Tennessee, and New York (Lodish 35). A report of a 1994 National Commission on Education determined: "Common sense suffices: American students must have more time for learning. The six-hour, 180-day school year should be relegated to museums, an exhibit for our educational past. Both learners and teachers need more time—not to do more of the same, but to use all time in new, different, and better ways. The key to liberating learning lies in unlocking time" (10). To facilitate more efficient use of time, the
Commission also made the following suggestion: "Grouping children by age should become a thing of the past" (31).

As a result of research and experiences, many educators have considered alternatives to the traditional graded system. "Educators who start [multiage] programs often initiate them because they believe that the graded structure doesn't always meet children's needs and that students benefit from having the same teacher for more than one year" (Grant, Johnson, and Richardson Multiage 7). The current system of determining grouping of students according to astrology and arbitrary deadlines is based on several assumptions. The system assumes students of the same age are ready to learn the same material at the same rate, in the same amount of time (Stainback and Stainback 3). The system has been in place for over a century, yet "There is not, and there has not been, any philosophical or research-based support for continuation of graded structure" (Anderson and Pavan xi).

Why has the graded system survived so long if there is no evidence that it is the most effective method? Researchers have speculated a variety of reasons, the most common being tradition. "Perhaps the greatest force supporting the continuation of graded education is simply the fact that it has existed for well over a century" (Gausted, "Nongraded Education" 7). Many researchers and educators condemn the graded system as a tradition which is no longer effective. "Although the parallel may seem harsh, staying with gradedness in the 1990s is somewhat similar to what smoking tobacco was about a decade ago: a self-destructive habit, distressingly hard to abandon, and encountering insufficient national outrage to generate policies against it" (Anderson and Pavan xi).

More efficient use of time may be sufficient reason to consider revising the graded system. "Some claim that schools without fixed grade levels are a better way to educate young people. But [multiage] schools are just an old idea re-emerging on the educational scene after an all-too-brief respite" (Forrest and Mayo 29). We must look, as professionals, for alternatives. Multiage education has emerged as a viable alternative. It is a difficult concept to define. Educators describe multiage education in very different ways. "[A multiage classroom] contains groupings of children of various ages working and playing together; clusters of youngsters learning from one another, as well as from their own endeavors; and little people fighting, arguing, displaying impatience and frustrations as they learn to tolerate the diversity of others. It is a multitude of abilities, talents, and styles as well as a spectrum of ages," one educator explained (Fogarty vii). Another claimed the term multiage is used to "emphasize the goal of using teaching and curriculum practices that maximize the benefits of interaction and cooperation among children of different ages" (Katz, "Nongraded"). The term multiage often implies a commitment to specific teaching practices, as well as a grouping pattern. "Multiage classrooms are most successful when they are started with a philosophical
belief about the type of experiences appropriate for young children" (Grant, Johnson, and Richardson Multiage 15).

Though multiage systems vary, many elements remain constant. Multiage classes include at least a three-year age or a two-year grade span. Students in multiage classes remain with the same teacher or team of teachers for more than a year. Finally, the classroom is created for philosophical rather than monetary reasons.

Multiage Education Is Not...

With all of the educational jargon, terms such as multiage can easily be confused with other programs and philosophies. Some of the practices frequently confused with multiage education are looping, split-grade classrooms, and nongraded classrooms.

Looping occurs when a class of students advances to the next grade with its teacher or team of teachers. For example, in a looping situation, Mrs. Smith would teach a class of first grade students and then remain with those students another year as their second grade teacher. At the end of the second grade, Mrs. Smith would return to first grade to teach a new group of students. This practice takes advantage of additional time together for teacher and students, but does not involve children in multiple grades working together. Looping teachers gain the advantage of extra time every second year, while multiage teachers experience the benefit each year, because they always have a core group of returning students.

Combination, multigrade or split-grade classrooms appear to be similar to multiage classrooms, but differ in philosophy. "Multigrade classes are formed out of necessity; multiage classes are formed deliberately for their perceived educational benefits" (Vennman). Combination classes are "usually created for budgetary reasons or because there are too few students to justify two different classrooms" ( Grant, Johnson, and Richardson Multiage 7 ). In this setting, teachers often complain about the difficulties of having to teach two distinct curriculums simultaneously. If you were to observe this type of classroom you might see all the fourth graders sitting on the left side of the room doing seatwork while the teacher worked with the fifth graders on the right side of the room. "A lot of it is the intent," said Irv Richardson, associate executive director of the Society for Developmental Education in Peterborough. "The best reasons are philosophical. If you say I've got eight first-graders and two second-graders, I don't see a lot of benefit to that. If you tell me you're going to combine them to meet children's needs, you've got me interested" (Kittredge 1 ). The goal of combined classrooms is "to maximize personnel and space resources rather than to capitalize on the diversity of ability and experience in the groups with mixed ages" (Katz, "Nongraded" ). These classrooms often fail because teachers treat the single classroom as if it were two separate classrooms. Teachers do not have enough instruction time for either grade level. "Sometimes, [schools] don't have enough students to justify two classrooms, so
they say we’ll combine the better students from the lower grades with the needier students from the higher grades,” said David Gebhardt, the Massachusetts Department of Education’s consultant for school approval. “And that’s not appropriate” (Kittredge 1). Since these classrooms are often mistakenly labeled multiage, they contribute to the negative connotations of the term. An example of this is in the following quote: "Multiage or multigrade groups may be formed as an administrative device to solve negotiated-contract problems of equal class size or as a result of a commitment to having students of varying ages working together” (Anderson and Pavan 43). Obviously, multiage is not a consistently defined term.

Nongraded classrooms are difficult to describe because there are so many different interpretations of the term. A generally accepted definition is: "Nongraded education is the practice of teaching children of different ages and ability levels together in the same classroom, without dividing them or the curriculum into steps labeled by 'grade' distinctions" (Gausted, "Nongraded Education" 2). Thus, “nongradedness” means simply not dividing children by grade. This term could be used to describe multiage classrooms, and would be appropriate. However, the primary purpose of nongraded classrooms is often to homogenize groups of children for instruction on a basis other than age or grade (Katz, "Nongraded"). This contradicts the philosophy of multiage education, which relies on heterogeneous grouping. "The ungraded or nongraded approach acknowledges that age is a crude indicator of what children are ready to learn. It emphasizes regrouping children for instruction on the basis of perceived readiness to acquire knowledge and skills, and not according to age. It does not emphasize educational benefits of a learning environment in which children at different knowledge and skill levels work together" (Katz, "Nongraded").

There are several common misconceptions about multiage classrooms. The first is that they are less structured than traditional classrooms. In reality, multiage classrooms are more structured because teachers need to organize students working on several different tasks. Many people also think multiage classrooms are meant to equalize children of different ages and abilities (Lodish 37). Multiage education has the opposite purpose. Multiage classrooms are designed to capitalize on the inclusion of different ages and abilities through cooperative learning and modeling. Another misconception is that younger students will be overwhelmed. In a multiage classroom where the teacher has appropriate expectations for each child, younger children will not be overwhelmed. Younger students are not expected to work at the same levels the older students do, nor is the reverse true. All children are expected to work at their own level and pace.

Advantages of Multiage Education

Educators, parents, administrators, and students list countless advantages of multiage classrooms. These advantages can be grouped into several categories: advantages to
students because of the mixed-age environment, advantages to students because of the multiple-year experience, and advantages to teachers.

One major advantage to children inherent in multiage classrooms is the modeling that takes place. Modeling is described as "Probably the strongest instruction piece you can have" (Thompson ). Modeling is the natural process by which younger students pick up behaviors they observe in older students. "Direct tutoring by the older child is not required" (Merrick 14 ). Modeling occurs even when it is not intended. "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" (Merrick 14 ). Younger students will imitate academic and social behaviors demonstrated by older children. "Nothing is more interesting to a child than another child who has the skills that he or she wants to acquire" ( Merrick 14 ). In addition to this unintended, natural modeling, older students can also provide direct instruction to younger students. When the one student shows another student how to do a task, it introduces the concept to one student and allows the other student to practice the skill and develop nurturing behaviors (Goularte 14 ). "When older children 'teach' newly learned skills to younger classmates, they strengthen their own understanding of these skills" ( Lodish 37 ). In 1978, Vygotsky introduced the "zone of proximal development" ( Stone, "Creating"). "In this concept, a child’s level of potential development can be enhanced by more capable peers. The wider range of ages and abilities in mixed-age groupings encourages greater cross-age interaction, whereby children naturally help and support each other" (Stone, "Creating"). Modeling also benefits the older students when social behaviors are involved. Self-regulatory behavior improves when older students need to remind younger students what the rules are (Katz, “The Benefits”). Modeling and tutoring benefit both the older and the younger students and occur more naturally in multiage classrooms because of the age span.

Another benefit to students in a multiage classroom is the increased similarity of their classroom to the real world. "Certainly, grouping students strictly by age does not reflect a naturalistic life-like setting in which people of different ages learn from each other" ( W. Miller 4 ). When children interact outside of schools, in families, neighborhoods, ball teams, and scout troops, they are not divided by age. "[The children] simply do not think being in a class with kids of different ages is all that unusual. In fact, their classroom has just caught up with the rest of their lives" (Larosa and Moon 24 ). Age segregation has increased consistently since schools became graded. In 1918 the standard deviation of age among children in a ninth grade classroom in this country was 14.1 months. In 1952, the span had dropped to 8.6 months (Pratt 46 ). "By the mid-twentieth century, classrooms were more narrowly segregated by age than ever before" (Pratt 46 ). Classrooms with such a narrow age span are unrealistic. Adults work with colleagues of many different ages. "A larger age span is more reflective of the child's society outside school" (Lodish 36 ).
Research on primates shows that mixed-age groups are more natural than our forced, structured graded system. "Almost all of the 193 living species of monkeys and apes grow up in societies characterized by diversity of age" (Pratt 44). In fact, "the higher the primate is on the evolutionary scale, the more heterogeneous is the age composition of the play group" (Pratt 44). Groups containing different ages are not only normal for primates, but for humans as well. A 1981 study of urban children examined with whom children interacted in their leisure time. The research showed children associated with same-age peers only six percent of the time (Katz, Evangelou, and Hartman). The same children spent 55 percent of their time with children a year or more older or younger than themselves and 28 percent of their time interacting with adults (Katz, Evangelou, and Hartman). "Mixed-age play groups were the norm for children in most cultures of the past" (Gausted, "Nongraded Education" 16). As one educator asked: "If children spontaneously form heterogeneous groups, why do adults typically segregate them by age?" (Katz, Evangelou, and Hartman). Research shows that children choose to play with other children of all ages. The practice of separating them for educational purposes, based on the year they were born, is not a sound one. Multiage classrooms reflect the world outside the school walls. One teacher says her most important job is "To set up an environment for 'real' learning--a place where students discover their own autonomy and learn how to help each other. Just like real life" (Goularte 9).

The aforementioned benefits are substantial, but perhaps the most significant benefits to children in a multiage environment are the social effects. "Research showed students in multiage classrooms developed positive attitudes about school and improved social skills" (Goularte 10). In general, students in these programs develop leadership skills, nurturing behaviors, and a greater sense of community. They also are more accepting of individual differences.

Every year or two, depending on the length of the program, students in multiage classrooms become the experienced students in the room. This phenomenon leads to the natural assumption of leadership roles in play and classroom activities. Children who would be reluctant to take charge in a graded classroom have a greater sense of responsibility because they are the oldest in the class, and try various leadership roles. "A younger student has less understanding of expectations and procedures and so starts as a follower. Over time, the student matures and becomes more comfortable in assuming a leadership role in the classroom" (Anderson and Pavan 17). The assumption of these responsibilities increases the confidence of the older students as well. Since older students develop their leadership skills, younger students are given opportunities to engage in more complex activities than they could initiate on their own. "Multiage classes allow students to develop both leadership and followership skills" (Anderson and Pavan 17).

Multiage classrooms provide older students with the valuable experience of developing their nurturing skills as well. These skills, crucial to parenting, manifest themselves
naturally in a mixed-age setting. "Mixed-age grouping can provide older children with the opportunity to be helpful, patient, and tolerant of younger peers' competencies, and thus give them some of the desirable early experiences of being nurturant that underlie parenting and helping others who are different from oneself" (Katz, "Nongraded"). The presence of younger children also helps antisocial older children. "Younger children are particularly helpful in reducing the isolation of socially withdrawn older children" (Pratt 49). Also, helping others can help older students' sense of self-confidence. Being needed and admired by less able students improves a student's self-concept (Grant, Johnson, and Richardson Multiage 48). The opportunity to be caring nurturers often gives older children the chance to surprise themselves as well as others. One teacher reports: "I watched one of my students, a child who is generally angry and sullen with his peers, teach his buddy place value concepts using a gentle manner that caught me by surprise" (Goularte 14). Because of this added nurturance, multiage classrooms "can provide a therapeutic environment for children who are socially immature" (Katz, "The Benefits"). As younger students benefit from the extra attention and support, they are learning how to do the same for the next class. "Exposure to older children as nurturers provides young recipients with models of behavior they can emulate when they become the older members of a group" (Katz, "Nongraded"). Thus the tradition continues year after year, benefiting all students in the room.

In a group of children of different ages, competition is reduced and the atmosphere is generally collaborative. The group becomes a supportive family. "Competition among students is replaced by a growing sense of community" (Hime and Moore 45). There is less bullying, more taking turns, and greater social responsibility. Work in cooperative groups also improves because of the varying ages. "When groups of children ranging in age from seven to nine years or from nine to eleven years were asked to make decisions, they went through the process of reaching a consensus with far more organizing statements and more leadership behavior than children in same-age groups" (Katz, "The Benefits"). The children in a multiage classroom form a cohesive group and learn to support each other rather than to compete. "Cooperation is fostered in mixed-age groups by the different expectations children have of those older and younger than themselves" (Gausted, "Nongraded Education" 16). This cooperation is beneficial to students. As one team of teachers said: "We will never lose our commitment to team teaching in a multiage setting as the best possible method of creating a true community of learners" (Lawson and Williams 77).

In a graded classroom, students are expected to be at approximately the same level academically and to learn at the same rate simply because their chronological ages are the same. Since multiage classrooms include students of different ages, they are expected to be at different levels. "With multiage grouping, there's no forcing square blocks into round holes" (Forrest and Mayo 29). Multiage education is beneficial because it capitalizes on student differences. Many graded classrooms are divided into three groups for reading and math. "Grouping in K-1-2 spans is no different, except the
differences are considered natural and normal. There is no 'dumb' group" (Cornell 15). This improves students' self-confidence. "Anyone who thinks children in the lowest reading group don't feel dumb doesn't know young children well" (Cornell 15). Students in multiage classrooms are not ostracized for being in a lower group as they might be in graded classrooms. "Age-segregated classrooms are particularly difficult for children whose development differs from the norm" (Pratt 51). But children are not the only ones who sometimes judge based on expected levels of achievement. "The wider range of ages and abilities in a multiage classroom discourages misleading age-graded expectations and helps teachers focus on students' individual learning needs" (Gausted, "Building"). This acceptance of other people's unique strengths and weaknesses is a valuable practice for students to learn. "Working with different age levels lead children to respect individual differences" (Faulkner and Faiveley 76). As students learn to accept differences in their peers, they also learn to accept their own strengths and weaknesses. "The wider the age span in a group, the wider the range of behavior and performance likely to be accepted and tolerated by the adults as well as by the children themselves" (Katz, "The Benefits"). Multiage classrooms create an atmosphere which enables students to allow themselves and their peers to be individuals. They also encourage teachers to meet each student's individual needs.

All of these social benefits contribute to more positive attitudes of students in multiage classrooms. There is not a substantial body of research demonstrating academic benefits to children in multiage classes. "Multiage grouping does, however, tend to be associated with better self-concept and attitude toward school" (Pratt 50). The fact that students in multiage classrooms have better mental health is supported by research. A compilation of 42 research studies examining mental health published between January 1968 and December 1990 showed significant benefits of environments not divided by grades. Though these studies termed the classes graded and nongraded, the characteristics of the nongraded classrooms fit my description of multiage classrooms. "All these studies except two either favored (in whole or in part) the nongraded groups or reported no significant difference" (Anderson and Pavan 47). Fifty-two percent of the studies indicated that students in nongraded classrooms had better mental health and 43 percent showed no significant difference (Anderson and Pavan 47). "Boys, blacks, underachievers, and students of lower socioeconomic status were more likely to perform better and to feel more positive toward themselves and their schools in a nongraded environment" (Anderson and Pavan 53).

In multiage classrooms, children are encouraged to learn at their own pace. "Age grouped education is inherently unstable and inefficient. If it is enforced completely, numerous children will necessarily be waiting bored while others struggle to keep up" (Osin and Lesgold). Multiage classrooms eliminate the wasted time waiting for everyone else to catch up. Advanced students can learn more in multiage classrooms than in traditional classrooms because there is no preconceived ceiling.
"The multiage classroom becomes a positive, nurturing, and safe environment for its students. When this type of environment is provided, the result is happy children" (Grant, Johnson, and Richardson Multiage 40). "Multiage education emphasizes building upon strengths—which builds self-esteem. It also focuses on the whole child, not just his academic skills; a child’s gift for social interaction or artistic expression is valued as well" (Grant, Johnson, and Richardson Multiage 40). When students are happier in their school environment, they learn better and are less likely to cause discipline problems (Grant, Johnson, and Richardson Multiage 41). In a multiage classroom at Mt. Vernon Elementary in Virginia: "Children are happy learners, test scores of our students have been among the highest in the city, and parents are participating and engaging in their child’s learning" (Clark 64).

All of the advantages I have mentioned are a result of combining students of different ages in the same classroom. Students also benefit from having more than one year with the same teacher or team of teachers. "When teachers and students are together for two years in a row, they reap both academic and emotional bonuses" (Hanson 29). Students in a multiage classroom experience less pressure to learn at a specified rate. "A student who needs more time to master the continuum of skills and concepts can spend two years in a class without failing a grade or being held back" (Faulkner and Faiveley 75). This is especially beneficial in the lower primary grades. The first grade curriculum contains numerous new skills and concepts, while significantly less new material is introduced in second grade. Many first graders are retained when what they need is to spend an extra month or two on the first grade curriculum (Hime and Moore 45). "In most American schools today, by third grade most classroom rosters will reveal a spread of 3 years, not 12 months" (Cornell 15). Some of these students have been retained, and some have been accelerated. "Both decisions result in trauma for the individuals involved" (Cornell 15). Students in multiage classrooms benefit from extra time to master necessary material without the stigma of having failed. "The students would still be with chronological peers, but would have the extra time to master skills and concepts" (Hime and Moore 47). Reducing the number of students who are retained is a significant benefit, especially for those students. "Dozens of studies have found that retaining students actually contributes to greater academic failure, higher levels of dropping out, and greater behavioral difficulties, rather than leading to success in school. Students who are held back do worse in the long run than comparable students who are promoted, in part because they give up on themselves as learners" (Darling-Hammond).

Because students in multiage classrooms have the same teacher for more than one year, their learning is more continuous. "A teacher who works with the same group for two or more years is also in a better position to evaluate each youngster's cognitive process and to prevent fragmentation or necessary repetition of instruction" (Milburn 58).
Another benefit is the lack of anxiety students feel during the summer when they know they will be returning to the same teacher and many of the same classmates. For students without a significant adult at home, having a teacher for more than one year can make a world of difference. "Our experience indicates that the most important variable in a positive elementary school program is the constant attention of a single teacher/caregiver with whom the child can develop a predictable and meaningful relationship. As children reach the ages of eleven and twelve, peers become more important and teachers less important to children. But especially in these first stages of independence, children need one teacher there as an anchor, as well as an object for rebellion" (Wood 20).

Parents also benefit from the consistency of multiage classes. "Parents whose child is in a multiage program have an opportunity to establish a strong relationship with the child's teacher over a period of several years" (Grant, Johnson, and Richardson Multiage 81). This improved rapport may help parents feel more comfortable to discuss specific concerns they may have about their children.

Teachers also experience advantages working in a multiage classroom. The most significant advantage is the additional time to work with the same group of children. They teach each child for two or three years, depending on the program. This provides time for the teacher to ensure each child's learning and to establish a relationship with each child. "We felt less pressure to 'get it all in,' since we would spend two years with the same group of students" (Lawson and Williams 75). "Simply knowing we had two years instead of one with this new class lifted that awful pressure from teachers and students alike. The two-year cycle allowed us to put our energies where they belonged -- toward learning, at whatever pace" (Hime and Moore 45). Teachers are able to utilize the time over the summer for remedial or enrichment work. Also, there are fewer new students each year for the teacher to assess. Continuity for both students and teachers is also a benefit. "Since children learn on a continuum, the greatest advantage is not disrupting that process between grade" (Matthews).

The benefit of extra time also facilitates a strong relationship between teacher and student. Jim Grant comments: "We don't change doctors or dentist every year, and for good reason. So why should we change teachers? ... Everybody knows each other and what to expect, and they get right to work without spinning their wheels for days or even weeks" (W. Miller 7). "In a multiage classroom the teacher has more time to establish relationships with the children, learn their strengths, and to do in-depth evaluation of each child's progress" (Grant, Johnson, and Richardson Multiage 60).

Once a relationship has been established between child and teacher, the child feels more comfortable and is more likely to take risks and experience academic growth. "Recent research has found that students experience much greater success in schools structured to create close, sustained relationships among students and teachers. In high achieving countries like Japan, Germany, Sweden, and Switzerland, teachers often stay..."
with the same students for two or more years and teach them more than one subject so that their teaching is informed by greater knowledge of the students and how they learn” (Darling-Hammond).

Disadvantages of Multiage Education

There are many perceived disadvantages of multiage education, but some of these disadvantages are based on misconceptions, not actual practices. Common criticisms of multiage settings are that the older students will spend all their time tutoring rather than learning and that children are too different to combine grade levels.

Many parents express concern that the older students in a multiage classroom will spend their time tutoring the younger students and will not learn anything new. First, multiage education has not been shown to have any negative effects on academic achievement. In a compilation of 57 studies, published between January 1968 and December 1990, the majority of research favors classrooms not strictly divided by grades (Anderson and Pavan 46). Students in graded classrooms performed better on standardized tests in only nine percent of the studies, while 58 percent of the studies showed significantly higher scores by students in nongraded classrooms (Anderson and Pavan 46). Thirty-three percent of the studies showed no significant difference (Anderson and Pavan 46). "Older children are as academically challenged in the top half of a mixed-age class as they would be in a single-age class when there is an equally demanding curriculum and individual attention to learning style and academic level” (Lodish 37).

Part of this misconception stems from the belief that the older children will always be helping and the younger students always in need of assistance. Research proves this is not the case. In a recent study, five to seven year olds were observed during their free choice time in a multiage classroom. During the 15 hours they were observed the occurrences of assistance were categorized. An older student helped a younger student 42 percent of the times (Stone, "Standing"). A student helped a same-age peer 33 percent of the times and 24 percent of the occurrences involved a younger student helping an older student (Stone, "Standing"). Also, students emulate each other without requiring direct tutoring. Children often acquire behaviors by simply observing and then imitating social models. "It is interesting to note that these models are often just pursuing their own interests, and are not consciously trying to teach anything” (Bandura).

Another concern about multiage classrooms is that children of different grades are too diverse to be effectively educated in the same classroom. This concern is based on the erroneous assumption that students in graded classrooms are all the same. However, "age and development are not always on a parallel time-table" (Faulkner and Faiveley 75). In fact, "Children put together because they are close in chronological age, still
have academic, social, and emotional needs that span several years” (Clark 60). All children in a multiage classroom will not have the same degree of readiness for any given lesson but children in a graded classroom are no different. "In any first grade class, there will be a four-year span in pupils’ readiness as suggested by mental age data. Furthermore, children progress in all subjects at different rates” (W. Miller 4). One multiage teacher observed: "I was most surprised by how little the age corresponds to the ability and how difficult it becomes to guess who is what grade after a while” (Bosen).

While these two concerns are based on misconceptions, there are several potential drawbacks to multiage classrooms which must be considered. One is the possibility that older or gifted and talented students may be neglected. "Every effort needs to be made to challenge advanced learners” (Grant, Johnson, and Richardson Multiage 26). This is a possibility teachers must be aware of and address. As long as teachers provide enriching, challenging experiences for all children, the advanced children will be very successful. The same concern could also apply to a traditional graded classroom.

At the other extreme, there is the possibility younger students will be overwhelmed or frustrated in a multiage setting. As in a graded classroom, children should not be expected to accomplish developmentally inappropriate tasks. Appropriate expectations and support will ensure that the younger students progress without feeling unnecessarily pressured.

Other potential disadvantages of multiage classrooms are a result of concerns about the multi-year experience itself. Because children are grouped together for more than one academic year, considerations need to be made in the case of a dysfunctional class or an incompatible relationship that directly affects the child's ability to perform successfully in that classroom. A change in the composition of the class needs to be made if it includes a group of students who do not work well together, or if there is a personality clash between a teacher and student or a teacher and parent. Administrators need to be willing to alleviate these situations rather than insisting students remain in an uncomfortable situation for more than one year. "It seems every few years a school ends up with a class with an unusually difficult combination of students" (Grant, Johnson, and Richardson Multiage 26). This type of class should be reorganized to minimize the difficulties. A difficult class should not be perpetuated. If a situation occurs when a teacher does not interact well with a student in the class or with a parent, every effort should be made to switch that student to a different situation. Team teaching situations lessen the impact of this type of conflict because the children have more than one teacher with whom to interact. Neither the teacher nor the student will benefit from a second year in an uncomfortable situation.

Another potential drawback which can be eliminated by appropriate actions at the administrative level is an unbalanced multiage class. There is a tendency to assign at-
risk students to multiage classrooms because of the perceived benefits. "Keeping too many high-impact students together in a multiple year placement is a form of tracking" (Grant, Johnson, and Richardson Multiage 26). Also, the classroom should be academically balanced, not overloaded with students with special needs. "Steps must be taken to assure that the multiage classroom does not turn into a special education room or a dumping ground" (Grant, Johnson, and Richardson Multiage 26).

A final potential disadvantage is the possibility of creating too much diversity in a multiage classroom. If the number of students in the class is small, students will have limited choices for establishing same-age, same-sex friendships (Lodish 40). The first response to this concern is the fact that children do not necessarily need same-age friends. "While age is a determinant of friendship, children and adolescents choose friends who are at an equivalent level in terms of development rather than chronological age" (Pratt 49). In a study observing 15 hours of free time in a classroom of five through seven-year olds, 90 percent of the children chose to play in mixed-age groups (Stone, "Standing"). The second response is for teachers to provide opportunities, such as recess or field trips, for students to mix with other classes. Another possibility is forming a team teaching situation. If the classroom has two teachers and twice the expected number of children, children will have the same number of same-age peers with whom to interact as they would in a traditional classroom.

Practices Associated With Multiage Education

There are many educational practices associated with multiage education. These practices are not found in all multiage programs but are often used in this type of classroom. Some of these practices are developmentally appropriate instruction, team teaching, and centers.

There are two competing philosophies central to understanding the way people learn. Some people subscribe to the psychometric view. Supporters of this philosophy believe children have mental abilities which can be quantified by tests (Stone, "Standing"). They also believe knowledge is acquired and that the goal of education is to produce students who score higher on tests (Stone, "Standing"). The opposing view is called developmentally appropriate instruction. This way of teaching is usually associated with multiage education, but it is also employed in many traditional graded classrooms. Educators who employ this practice believe children have developing mental abilities and that knowledge is based on personal construction (Stone, "Standing"). They believe the purpose of education is to facilitate development (Stone, "Standing").

The use of developmentally appropriate practices is essential to the success of a multiage classroom. The result of not using this type of practices is frustrated younger
students and bored older students. Developmentally appropriate practices ensure every child is learning at his or her own level. Each child’s needs are being addressed and his or her mental abilities are developing.

Team teaching is not essential to multiage education, but it does have many benefits in a multiage setting. A team teaching situation usually involves two teachers and a class which is equivalent to two classes in number. These teachers may work in a larger classroom, or in two separate classrooms with frequent interaction. "Team teaching is not a requirement for a successful multiage classroom, but it has definite advantages in many respects" (Grant, Johnson, and Richardson Multiage 61). Teachers who team teach can provide emotional support for each other during the period of adjustment at the beginning of a multiage experience and throughout their teaching careers. They can also benefit from one another’s knowledge, and capitalize on one another’s strengths. Children in team teaching situations have the opportunity to interact with more than one adult, to get second opinions, and experience different teaching styles. Teachers also benefit from a second set of eyes, not only for management purposes, but for diagnostic and assessment purposes as well.

"Learning centers are classroom areas, settings, or materials that allow students to: explore, reinforce, or extend their understanding of subject are material; work alone, with a buddy, or in small (like or mixed-ability) cooperative groups; use a variety of learning styles and hands-on materials" (Forsten). Learning centers are often implemented in multiage classrooms but they are not an essential element. Centers can "Help teachers manage and balance their time by allowing flexible scheduling. Use of centers can fall along a continuum from occasional or supplemental use to all-day instruction" (Forsten). Centers are sometimes perceived as a necessary part of multiage classrooms, but multiage classrooms can exist without them, and centers can exist without multiage practices. Centers provide benefits for students especially in multiage classrooms. They can incorporate multiple intelligences, different learning styles, and students’ interests. "Providing a range of developmentally appropriate activities that meets the needs of children of various ages can be done very effectively in a center-oriented situation" (Grant, Johnson, and Richardson Multiage 10).

Developmentally appropriate practices, team teaching, and learning centers can all occur in traditional graded classrooms. They can also be implemented in multiage classrooms. There are two points to remember, however. First, "Many of the elements crucial to the success of multiage education are in place in some forms in most schools" (Grant, Johnson, and Richardson Multiage 33). Second, "Combining children into mixed-age classrooms without adjusting teaching and assessment practices is asking for a failure" (Grant, Johnson, and Richardson Multiage 10).
Obstacles to Multiage Education

There are several obstacles preventing multiage education from widespread use. Those deterrents are logistical limitations, constraining attitudes and habits of teachers. These obstacles must be overcome for multiage classrooms to achieve widespread acceptance.

The most significant logistical concern is planning. Beginning a multiage classroom requires a considerable amount of planning by the teacher, administration, and community. "Too many educators are implementing multiage classrooms and schools with insufficient forethought, planning, and participation of key stakeholders. I can think of no better way to destroy a potentially sound educational practice" (B. Miller ). Any educational change must be preceded by planning, and multiage classrooms are no different. In addition to the planning, after implementation educators, parents, and students all need to adjust to the change. "Having to get used to it is a small price to pay if it solves a major problem of the educational system" (Osin and Lesgold ).

Staffing multiage classrooms is another logistical concern. In schools where teachers are excited about multiage, there may be resentment on the part of teachers in traditional classrooms. They may feel multiage classrooms are being assigned too many of the gifted students or are being granted special privileges. In schools where multiage is an unpopular concept, teachers may be forced into teaching in a manner in which they are not comfortable. Both of these situations must be avoided.

Another logistical concern is support for the program. Multiage programs which lack administrative or community support are doomed. Administrators need to be aware of this obstacle and resolve it by providing support for teachers of multiage. Teachers need to receive training and the administration must be careful to keep the classes balanced, academically and behaviorally. Community support can be achieved by informing parents and listening to concerns. A few parents who feel their concerns are being ignored can spread their dissatisfaction very quickly. Standardized tests given at specific grades, and graded textbooks also make the switch to multiage classrooms a difficult one. "The biggest disadvantage I see is the system of assessment and the packaged curricula which are so very grade level specific" (Samsimonis ).

In addition to these logistical obstacles, attitudes of some teachers also stand in the way of multiage education. Understandably, many educators resent the tendency of administrators to embrace every innovation which comes along (Anderson 30 ). The only solution to this obstacle is information. Teachers' skepticism can be assuaged if they can see that multiage education is better for children. The limited acceptance of the slogan "All children can learn," also poses an obstacle to the multiage movement. Since multiage education is based on this belief, teachers who do not believe it is true also do not believe multiage classrooms can be effective. A third constraining attitude is the conviction that some students are only motivated extrinsically. Teachers who subscribe
to this belief maintain that some students thrive on competition and that the cooperative atmosphere of a multiage classroom will be detrimental.

None of these obstacles is insurmountable. Planning and education are the solutions which need to be implemented. Many teachers would be more likely to teach multiage classrooms if they understood them.

Conclusion

I can look around the room in any one of my college classes and see students ranging in age from 20 to 45. In discussions about literature, it is enlightening to hear how a students from different generations interpreted the author's message. My younger brother knew how to drive before he turned 16 because he had been in the car when I was learning. Explaining a math problem to a friend helps me to better understand how it is done.

All of the elements of multiage education exist in the world beyond the school walls. We interact with people of different ages. We learn from the experiences of others. We explain things to colleagues and friends. We do not expect the person sitting next to us to know exactly the same things we know. Why do we question these practices when they are transferred to the educational system?

The advantages of multiage classrooms have been proven by extensive research. Most of the disadvantages can be attributed to misinformation of alleviated by planning and organization. Multiage classrooms provide a more realistic, comfortable setting for students. Students will enjoy learning more if they are comfortable.

There is more information available on multiage education than could ever presented in a single thesis. I encourage you to do your own research and to consider what type of educational practices are best for our children.
Effect Size

Effect Size Research: Key Points
Steve Dinham ACER
- *The teacher* and the quality of his or her teaching are major influences on student achievement, along with the individual *student* and his or her prior achievement (all have large effect sizes).
- *School-based influences* (beyond the classroom) have weaker effects on student achievement.
- *Structural and organisational arrangements* (open vs traditional classrooms; multi-age vs age graded classes; ability grouping; gender; class size; mainstreaming) have negligible or small effects on student learning. It is the quality of teaching that occurs within these structural arrangements which is important.

Research Evidence
- **Prof John Hattie (Uni Auckland):** Meta-analysis of over 50,000 studies
  - *Major sources of variance in student achievement:*
    - Student: accounts for 50% of variance in student achievement
    - Home: 5-10%
    - School: 5-10% (principals, other leaders an influence)
    - Peer Effects: 5-10%
    - Teachers: 30%
    - "It is what teachers know, do, and care about which is very powerful in this learning equation".
Goodlad and Anderson, who introduced the modern notion of the non-graded elementary school in 1959, raised our awareness of the fact that age is a crude indicator of what learning experiences children are ready for. Implementation of Goodlad and Anderson's ideas originally consisted largely of organizing children in groups by ability rather than by age, thereby homogenizing groups in a different way. We have come to understand that the benefits of mixed-age grouping rest on the assumption that the differences within a group of children can be a source of rich intellectual and social benefits. The terms "ungraded" and "nongraded" used by Goodlad and Anderson suggest what we do NOT do in mixed-age settings separate children into grade groups by age but they fail to describe what we try TO do. That may be better conveyed by the use of the term "mixed-age grouping." A mixed-age group of children in which the children's age range is larger than a year sometimes two years and sometimes more is intended to optimize the educative potential of the mixture itself.

Although humans are not usually born in litters, we seem to insist that they be educated in them. The time that children spend in groups in schools and child care centers, particularly for preschoolers, amounts to replacing families and spontaneous neighborhood groups as contexts for child-to-child interaction for large portions of children's waking hours. More and more children are deprived of the information and models of competencies that once were available to them in natural mixed-age groups. The intention of mixed-age grouping in early childhood settings is to increase the heterogeneity of the group so as to capitalize on the differences in the experience, knowledge, and abilities of the children.

**OPPORTUNITY TO NURTURE**
When we ask a five-year-old to be tolerant of a four-year-old's first fumbling efforts to put on his or her jacket, or a six-year-old to be appreciative of a five-year-old's early efforts to read, we have the beginnings of parent education. Our young children need real contexts in which their dispositions to be nurturing can be manifested and strengthened. Furthermore, the young children who are encouraged, comforted and nurtured by older children will be able to emulate their older classmates when they themselves become the older ones in a group. Children need opportunities not only to observe and imitate a wide range of competencies, but also to find companions among their peers who match, complement, or supplement their interests in different ways.

**WAYS OF LEARNING**
Single-age groups seem to create enormous normative pressures on the children and the teacher to expect all the children to possess the same knowledge and skills. There is a tendency in a homogeneous age group to penalize the children who fail to meet normative expectations. There is no evidence to show that a group of children who are all within a twelve-month age range can be expected to learn the same things, in the same way, on the same day, at the same time. The wide range of knowledge and skills that exists among children within a single-age group suggests that whole-group instruction, if overused, may not best serve children's learning.

On the other hand, the wider the age span in a group, the wider the range of behavior and performance likely to be accepted and tolerated by the adults as well as by the children themselves. In a mixed-age group, a teacher is more likely to address differences, not only between children but within each individual child. In a mixed-age group, it is acceptable for a child to be ahead of his or
her same-age peers in math, for example, but behind them in reading, or social competence, or vice versa.

Research on social benefits indicates that children very early associate different expectations with different age groups. Experiments have shown that even a three-year-old, when shown pictures of older and younger children in hypothetical situations, will assign different kinds of behavior to an older child than to a younger child. For instance, younger children assign to older children instructive, leadership, helpful, and sympathizing roles, whereas older children assign to younger children the need for help and instruction. Thus in the mixed-age group, younger children perceive the older ones as being able to contribute something, and the older children see the younger ones as in need of their contributions. These mutually reinforcing perceptions create a climate of expected cooperation beneficial to the children, and to the teachers who otherwise feel they are doing all the giving.

Increasing the age range automatically increases the number of teachers available, for younger children particularly. One potential problem that may arise when children assume the role of teacher to other children is that some older children will give younger ones incorrect information, poor suggestions, or wrong advice. When teachers observe such interactions, they can benefit from learning where both children need additional help, and they can correct any misinformation that has been exchanged. Results of experiments in which children worked in groups of three, either in same-age or mixed-age groups, have shown that in the latter, older children spontaneously facilitated other children's behavior. In a single-age triad, on the other hand, the same children spontaneously became domineering and tended to engage in one-upmanship. When groups of children ranging in age from seven to nine years or from nine to eleven years were asked to make decisions, they went through the processes of reaching a consensus with far more organizing statements and more leadership behavior than children in same-age groups. When the same children dealt with identical kinds of tasks in same-age groups, there were more reports of bullying behavior. 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 than in single-age groups (Chase & Doan, 1994).

Observations of four- and five-year-olds in a group found that when the teacher asked the older children who were not observing the class rules to remind the younger ones what the rules were, the older children's own "self-regulatory behavior" improved. The older children could become quite bossy, but the teacher has a responsibility to curb the children's bossiness in any group.

SOCIAL PARTICIPATION
In a mixed-age group, younger children are capable of participating and contributing to far more complex activities than they could initiate if they were by themselves. Once the older ones set up the activity, the younger ones can participate, even if they could not have initiated it.

Research indicates that mixed-age groups can provide a therapeutic environment for children who are socially immature. Younger children will less quickly rebuff an older immature child than the child's same-age mates. Younger children will allow an older child to be unsophisticated longer than will his or her age peers (Katz et al., 1990).

INTELLECTUAL BENEFITS
Even four-year-olds spontaneously change the way they speak to suit the age of the listener. They change the length of the sentence, the tone, and the words they use. Studies of cognitive development suggest that cognitive conflict arises when interacting children are at different levels of understanding, regardless of their ages. If two children are working on a task that one understands well and another 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 argument (Katz et al., 1990).

RISKS AND CONCERNS
Every method of grouping children has risks. One concern with mixed-age grouping is ensuring that
younger children are not overwhelmed by older or more competent ones. Teachers have an important role to play in maximizing the potential benefits of the age mixture by encouraging children to turn to each other for explanations, directions, and comfort. Teachers can also encourage older children to read stories to younger ones, and to listen to younger students read.

Teachers can also encourage older children to take responsibility for an individual younger child or for younger children in general. Teachers can encourage older children not to gloat over their superior skills, but to take satisfaction in their competence in reading to younger children, in writing things down for them, in explaining things, in showing them how to use the computer, in helping them find something, in helping them get dressed to go outdoors, and so forth.

Teachers can show older children how to protect themselves from being pestered by younger children, for example, by saying to the younger children, "I can't help you right this minute, but I will as soon as I finish what I am doing." Teachers can also help younger children learn to accept their own limitations and their place in the total scheme of things, as well as encourage older children to think of roles and suitable levels that younger ones could take in their work or in their activities. The basic expectation is that the children will be respectful and caring of one another (Lipsitz, 1995).

When teachers discourage older children from calling younger ones "cry babies" or "little dummies," they help resist the temptation of age stereotyping. Every once in a while one can observe a teacher saying to a misbehaving first grader something like "that behavior belongs in kindergarten." The teacher still will expect the first grader to be kind and helpful to the kindergartners during recess, though he or she has just heard kindergartners spoken of in a condescending way. A mixed-age group can provide a context in which to teach children not only to appreciate a level of understanding or behavior they themselves recently had, but also to appreciate their own progress and to develop a sense of the continuity of development.

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A Multiage Approach...

is more than a mixed age class

Simply creating a class of students from more than one grade level and calling it multiage is not what is meant by a multiage approach. In some respects, the literal meaning of ‘multiage’ interferes with a conceptual understanding of the learning environment of a multiage class. The fact that it is a class of ‘multiple ages’ may lead one to associate it with other types of classes in this category: multi-grade, split class, combined grade, blended grades. Usually these classes are formed to deal with an imbalance of student enrollment. Teachers of these classes attempt to instruct the grade-level curriculum for each group, with double (or triple) the preparation.

is more than “good teaching”

An effective multiage teacher orchestrates the class as a facilitator, using instructional strategies which encourage and empower students to become independent learners. These developmentally appropriate practices cater to student developmental learning stages rather than to their chronological age. When students experience success and an appropriate level of challenge, they are more likely to become self-motivated learners. Each strategy is more effective when used in combination with the others, as they weave together to create a learner-centered program. For example, differentiated instruction is more effective when used with flexible grouping and authentic assessment.

Teachers of single-age classes can use many of these same instructional practices as a multiage teacher; but will not achieve the same degree of learner-centeredness as a multiage class. Think about elements of a multiage class that cannot be replicated in a single-age class:

- Mixed-ages, natural cross-age tutoring opportunities
- Wider social experience with mixed-ages
- Transition of class roles from a novice to a mentor
- Increased awareness of “what comes next” for ‘young-ers’
- Increased sense of reflection of “how much I’ve learned” for ‘old-ers’
- New mix of classmates every year (1/2 or 1/3 in-coming students as ‘olders’ move on)
- Decreased anxiety of students transitioning to new teacher or next stage in schooling because they already know the teacher and some students as former classmates

These features of a multiage structure enhance the effectiveness of learner-centered pedagogy.

Curriculum is usually presented through in-depth, integrated, ‘real-life’ class topics which the teacher initiates, but allows for student investigation according their interests. Family grouping, vertical grouping and nongraded are terms for classes similar to a multiage class.
Critical Issue: Enhancing Learning Through Multiage Grouping

ISSUE: Redesigning schools to nurture the developmental needs (social, emotional, intellectual, and physical) of all children is one of the significant challenges educators face in the 21st century. The use of multiage grouping, an alternative to the conventional graded classroom, is one viable means that schools may consider in order to meet this challenge.

OVERVIEW: Multiage classrooms utilize an organizational structure in which children of different ages (at least a two-year span) and ability levels are grouped together, without dividing them or the curriculum into steps labeled by grade designation (Gaustad, 1992). A multitude of terms has been used interchangeably and sometimes confusingly in literature pertaining to multiage education: mixed-age grouping, multigrade classes, family grouping, nongraded or ungraded education, and continuous progress model (Katz, 1992; American Association of School Administrators, 1992). For consistency and clarity, the term multiage will be used throughout this document.

"The multigrade classroom has traditionally been an important and necessary organizational pattern of education in the United States," notes Miller (1993, p. 65). Multiage education dates back to the one-room schools that were the norm in this country until being phased out in the early part of the 1900s (Cohen, 1990; Miller, 1993). From the mid-1960s through mid-1970s, a number of schools implemented open education, ungraded classrooms, and multiage grouping. Although some schools continued to refine and develop the multiage concept, many of these programs disappeared from public schools as a result of negative parental reactions and a major mismatch between the teaching methods and the curricular expectations and materials of that period (Uphoff & Evans, 1993; Miller, 1993). In some magnet schools, private schools, and preschools, however, multiage programs continued to thrive.

Interest in the potential benefits of multiage grouping has increased steadily again in recent years. The growing interest is due to a greater focus on the importance of the early years in efforts to restructure the educational system (Stone, 1995; Katz, 1992; Anderson, 1992; Willis, 1991; Cohen, 1990) and an awareness of the limitations of graded education. The realization that childrens' uneven developmental patterns and differing rates of progress are ill-matched to the rigid grade-level system has left teachers searching for a better way to meet the needs of all students (Miller, 1996). More and more schools are implementing multiage programs because of the current educational practices embedded in the multiage model that address these issues (Cohen, 1990).
Multiage education has benefits for a wide range of children. Although multiage grouping is commonly implemented at the preschool and primary levels, it also is appropriate at the intermediate, middle school, and junior high levels. The National Middle School Association (1997) has identified multiage grouping, cooperative learning, heterogeneous grouping, developmentally appropriate learning tasks, cross-age tutoring, flexible scheduling, and positive evaluations as important instructional strategies for older children. Multiage grouping also is beneficial for gifted and special-needs students (Nye, 1993). Gifted children are challenged to achieve to their potential because there is no limitation of a grade-level curriculum. Special-needs children in mixed-aged grouping typically find that their individual differences are accepted and their contributions are recognized. In addition, at-risk children and children for whom English is a second language also are likely to benefit from the multiage classroom. Mixed-age grouping may be a lifeline to children at risk because it encourages self-respect and creates a learning environment that keeps students involved and motivated. Children whose primary language is other than English typically receive special support and assistance from their multiage classmates (Grant, 1993).

The look of multiage classrooms today is quite different from their predecessors of the 1960s and 1970s. One way that current multiage programs differ from earlier models is their grounding in the work of researchers and theorists that focuses on the learning process and supports the various attributes and strategies embedded in the multiage model. Although programs in existence today differ from school to school and district to district, they all seem to share common characteristics. Examination of successful multiage programs along with the current literature reveals the importance of several critical attributes in multiage education. Many of these identified attributes can be found in a variety of settings as a part of good teaching practice; all are embedded in the multiage model:

- **Multiage and Mixed-Ability Grouping.** Multiage and mixed-ability grouping calls for a heterogeneous mix of children with a minimum two-year age span. The children remain with the same teacher or teaching team for more than one instructional year (Stone, 1995; Miller, 1993; Katz, 1992). Within the multiage classroom or program, there is an absence of grade levels and related labels (McLoughlin, 1969; Anderson & Pavan, 1993). Opportunities exist for each child to interact with children of varying backgrounds, abilities, interests, personalities, and ages (Anderson & Pavan, 1993). According to Katz (1995), "the intention of multiage grouping is to increase the heterogeneity of the group so as to capitalize on the differences in the experiences, knowledge, and abilities of the children."

- **Developmentally Appropriate Practices.** Developmentally appropriate practices are teaching methods and curriculum components that are based on a child's developmental abilities. Such practices include active learning experiences, varied instructional strategies, a balance between teacher-directed and child-directed activities, integrated curriculum, and learning centers (Privett, 1996; American Association of School
Administrators, 1992; Bredekamp, 1990). These practices are reflected in the position statement of the National Association for the Education of Young Children on Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth Through Age 8. This document outlines educational practices based on knowledge and theories of how children learn and grow.

- **Flexible Grouping Patterns for Learning.** Within a typical multiage classroom of 25 to 30 students, children work in various grouping patterns--as individuals, pairs, triads, small groups, large groups, or whole class. Such short-term groupings are based on interest, needs, learning style, problem solving, skill instruction, and reinforcement (Privett, 1996; American Association of School Administrators, 1992; Grant, 1993). In this approach to grouping for learning, the teachers choose the grouping strategy that is most appropriate for the learning situation and facilitates learning for each individual child. Anderson and Pavan (1993) suggest the following grouping patterns for various learning strategies: individual work for independent study or working one-on-one with the teacher; groups of two to five students for cooperative learning situations; five to eight students for a task force, committee, or project; 12 to 15 students for a discussion or decision-making activity; and a large group for listening to, attending, or viewing a lecture, video, play, or reports.

- **Continuous Progress.** In a multiage classroom, children learn in a continuum; they move from easier to more difficult material and from simple to more complex strategies at their own pace, making continuous progress rather than being promoted once a year or required to wait until the next school year to move forward in the curriculum (Gaustad, 1992; Katz, 1992). Developmentally appropriate schools are flexible in their expectations about when and how children will acquire certain competencies (National Association for the Education of Young Children, 1996). Children are viewed as individuals, and expectations are adjusted for each child. "Instruction, learning opportunities, and movement within the curriculum are individualized to correspond with individual needs, interests, and abilities," note Anderson and Pavan (1993, p. 62). Continuous progress promotes social, emotional, physical, aesthetic, and cognitive development. It is success oriented, avoiding the problems associated with retention (Privett, 1996; National Association for the Education of Young Children, 1996).

- **Professional Teamwork.** A key to successfully meeting the needs of all students is the development of collaboration among teachers and other school staff (Vila & Thousand, 1993). Regular time set aside for planning and sharing by staff members is essential for a successful multiage approach. Ongoing professional development can provide teachers with practical knowledge of instructional delivery systems such as team teaching, collaborative teaching, and peer coaching, which are appropriate in multiage classrooms (Privett, 1996; American Association of School Administrators, 1992). All school staff--including resource teachers, special services professionals, librarians, and art and physical education teachers--can participate in long-range planning and open communication regarding the multiage program.

- **Authentic Assessment.** Authentic assessment is any type of assessment that requires students to demonstrate skills and competencies that realistically represent problems and situations likely to be encountered in daily life. Students are required to produce ideas, integrate knowledge, and complete tasks that have real-world applications. Such assessment is ongoing and diagnostic, yielding information on a student's strengths and
weaknesses so that the teacher can tailor lessons to the student's specific needs. Authentic assessment considers the child as a whole (socially, emotionally, physically, and academically) and encompasses a wide range of options, such as portfolios, exhibits, presentations, demonstrations, and other types of performance assessment (Anderson & Pavan, 1993, McLoughlin, 1969).

- **Qualitative Reporting.** Qualitative reporting consists of regular individualized school-to-home communication describing "how and what the child is learning, individual accomplishments, interests, abilities, and attitudes. Progress is related in terms of the continuous growth and development of the whole child" without comparison to others (American Association of School Administrators, 1992, p. 24). Qualitative reporting is based on how well children meet developmental and educational standards (Privett, 1996). These reports can be provided in a variety of formats, such as formal progress reports, portfolios, developmental checklists, parent-teacher conferences, anecdotal records, and videotapes.

- **Parent Involvement.** Parental involvement and understanding of multiage education is key to a program's success. Opportunities exist for parents to be involved in all aspects of a multiage program: helping with at-home learning, volunteering in the classroom, supporting fund-raising strategies and bond issues, and participating on school committees. The continuous exchange of information is critical to maintaining parental support and involvement (Privett, 1996; Nye, 1993; Anderson & Pavan, 1993; American Association of School Administrators, 1992). Partnerships between parents and schools are formed when parents not only are informed about school practice but have a role in the program as well; partnerships are enhanced and solidified as a result of the extended time parents and teachers have to get to know each other (Mazzuchi & Brooks, 1993).

Besides the growing research base on learning, renewed interest in multiage education is fostered by several other factors. Administrators are more supportive of curriculum change (Mackey, Johnson, & Wood, 1995) and better prepared to assume the role of facilitator and to share decision making with their staff (Fox, 1997; Anderson & Pavan, 1993). Teachers are familiar with curricular and instructional options that typify multiage classrooms, such as developmentally appropriate practices (Fox, 1997; Cohen, 1990), cooperative learning, team teaching, process writing, literature-based reading, and the use of manipulatives in mathematics instruction (Fox, 1997; Uphoff & Evans, 1993). Both teachers and principals understand the necessity for professional communication and collaboration (Fox, 1997; Anderson & Pavan, 1993).

The benefits of mixed-age grouping may be another factor leading educators to consider this model for their schools. Studies on nongraded programs have yielded information about both achievement and affective gains. Based on a review of 64 studies, Anderson and Pavan (1993) concluded that on achievement tests, children in nongraded groups perform as well as or better than children in graded groups. Guiterrez and Slavin (1992) synthesized the findings of several decades of research comparing the achievement of K-6 students in both nongraded and traditional arrangements. Their analysis, which reviewed research on various nongraded models, indicates that according to standardized measures, the achievement of students in nongraded programs is equivalent to or greater than that of students in graded programs. Other research results also support positive achievement effects.
Achievement effects are only one benefit of multiage grouping. This instructional approach encourages meaningful, engaged learning that often is self-directed. The organizational structure of the multiage classroom encourages children to take personal responsibility for learning (Nye, 1993). Teachers encourage children to apply skills and strategies and to help each other learn. Children keep track of their progress in learning activities, make choices in learning activities and centers, and reflect on their growth and learning (Stone, 1995; Nye, 1993).

Many affective gains also have been documented in multiage research. Students show increased self-esteem, more cooperative behavior, better attitudes toward school in general, increased prosocial (caring, tolerant, patient, supportive) behavior, enriched personal relationships, increased personal responsibility, and a decline in discipline problems (Mackey, Johnson, & Wood, 1995; Stone, 1995; Anderson & Pavan, 1993; Uphoff & Evans, 1993; Grant, 1993; Gutierrez & Slavin, 1992; Lodish, 1992; Katz, Evangelou, & Hartman, 1990; Miller, 1993; Villa & Thousand, 1993; Pratt, 1993). For example, preliminary results of an investigation by McClellan and Kinsey (1996) suggest that mixed-age grouping helps children develop social skills and a sense of belonging. These affective gains are due in part to the fact that competition is minimized as children progress at their own pace and individual differences are celebrated (Fox, 1997; Stone, 1995; Katz, 1995; Anderson & Pavan, 1993). Older students in particular develop mentoring and leadership skills as a result of serving as role models and helping the younger children (Stone, 1995; Nye, 1993).

Beth Rohloff, a K-1-2 multiage teacher at Buckman Elementary School in Portland, Oregon, describes the cooperation, social skills, and positive role-modeling that students display in a multiage classroom. Excerpted from a videotaped interview with Beth Rohloff (North Central Regional Educational Laboratory, 1998). A text version is available.

Because multiage classrooms emphasize the developmental process, parents usually are asked to accept a greater role in helping their children learn through home-learning activities and in-class participation. Parents also are asked at conferences to help set goals for their children’s learning. Many opportunities exist for parent volunteers to come into the school as well (Privett, 1996; Nye, 1993; Anderson & Pavan, 1993; American Association of School Administrators, 1992). Parents involved in multiage programs have a greater voice in decision making at the school. They are asked for input on a variety of topics, included in discussions, and invited to join committees (Anderson & Pavan, 1993; American Association of School Administrators, 1992). For more information on involving parents and families, refer to the Critical Issues "Creating the School Climate and Structures to Support Parent and Family Involvement" and "Constructing School Partnerships with Families and Community Groups.")

Relationships among students, teachers, and parents are enriched as a result of working together for more than one year. Both students and parents have a greater sense of security, and the relationships between school and home are more meaningful (Fox, 1997; Stone, 1995; Anderson & Pavan, 1993; Mazzuchi & Brooks, 1993). As a result of working together for multiple years, parents become more comfortable with teachers (Grant, 1993; Mazzuchi & Brooks, 1993).
Tim Laner, a K-1-2 multiage teacher at Buckman Elementary School in Portland, Oregon, describes how a multiage program provides an opportunity to develop close relationships between students, teachers, and families. [364k audio file] Excerpted from a videotaped interview with Tim Laner (North Central Regional Educational Laboratory, 1998). A text version is available.

Both teachers and children benefit from the increased participation, communication, and support of parents (Fox, 1997; Anderson & Pavan, 1993). A parent's willingness to be part of the school team enables teachers to be more effective, resulting in a better education for children (American Association of School Administrators, 1992). To encourage parent and family participation, schools can emphasize building support for multiage education through effective communication, involvement strategies, and shared decision making.

Teachers benefit from being in a multiage setting as well. Teachers involved in team teaching see greater collaboration and communication among their colleagues. Teaming also increases skill development among the staff (Fox, 1997; Anderson & Pavan, 1993). Teachers report being revitalized by the challenges of multiage practice, and they feel more confident in their teaching because children's development is seen in a less fragmented way. This renewed interest and confidence allows teachers to refocus on children's whole development in the classroom.

Beth Rohloff, a K-1-2 multiage teacher at Buckman Elementary School in Portland, Oregon, states that teaching a multiage class has given her a greater understanding of children's development and allowed her to refine her teaching skills and expectations. [392k audio file] Excerpted from a videotaped interview with Beth Rohloff (North Central Regional Educational Laboratory, 1998). A text version is available.

The increased learning time in a multiage setting also is beneficial to teachers; it allows teachers to spread out the curriculum over longer periods of time for maximum learning. Teachers also benefit because there is no need to spend a great deal of time at the beginning of each school year assessing and getting to know children. Also, less time is devoted to developing class routines because the previous year's students are able to assist new students.

Clearly, many benefits exist for the students, parents, and teachers of multiage programs. These benefits, coupled with current research on learning, provide a strong argument for implementing a multiage program. Miller (1996), however, cautions that the adoption of multiage practice involves a great deal of change; sufficient forethought, planning, and participation by key stakeholders (anyone who may be affected by the change) are essential to creating a multiage program that is lasting and productive. The active involvement of administrators and school board members is essential in creating support and providing ongoing professional development for multiage practice. At least a full year of planning, reading, discussion, and observation of successful multiage programs--prior to implementation--is strongly recommended (Miller, 1996; Nye, 1993; Grant, 1993; Gaustad, 1992).
A team of volunteers consisting of teachers, parents, administrators, and school board members can be formed to initiate the study period. It is essential to involve all stakeholders from the beginning to ensure a successful transition. "The implementation of multiage instruction and organization is best viewed as an evolving long-term change at the deepest levels of belief about how humans learn," notes Miller (1996, p. 17). It is important to keep everyone clearly updated on the evolution of the program (Miller, 1996; Nye, 1993; Anderson & Pavan, 1993; Gaustad, 1992; Calkins, 1993). Through readings, discussion, and observation, the team can come to consensus on the basic principles they hold. This ability to reach consensus can be a measuring stick for determining the readiness of the school for multiage education (Anderson & Pavan, 1993). Team members can reflect on how the school's beliefs compare to those of multiage education. Then they can decide if the time is right to move into planning for the critical attributes or if further discussion and education are required.

As a stepping stone, staff can begin preparing for a change to multiage practice in more gradual ways by implementing looping, in which a teacher stays with a class of children for two or more grade levels, or by developing a pilot program for multiage education. Such approaches help prepare teachers and administrators for implementing the multiage classroom.

After a team determines to move forward with planning a multiage program, special consideration needs to be given to teacher preparation and support. Several studies have revealed that teacher and parent understanding and support of multiage education is the paramount factor in a program's success (Miller, 1996; American Association of School Administrators, 1992). While each team must consider the skills and knowledge of its staff when creating a professional development plan, practical training in multiage teaching is a necessity (Miller, 1996). School visitations and contact with experienced multiage teachers can be a powerful element of training (Miller, 1996; Privett, 1996; Gaustad, 1992). The need for administrative support clearly signals that administrators and school board members should be included in such professional development activities.

Schools that have successfully implemented multiage programs recognize the potential need for professional development in varied instructional strategies such as: cooperative learning, literature-based reading, process writing, manipulative math, and other developmentally appropriate practices (Anderson & Pavan, 1993). Regardless of the staff development plan a school may adopt, teachers need time for training and for sharing ideas about the ways they assist children and approach their teaching. Allocating time for collaboration and planning must continue after a program is implemented. Experts agree that teaching in a multiage setting requires more preparation time and long-range planning (Gaustad, 1992; American Association of School Administrators, 1992).

When creating the multiage program, the purchase of teaching material well suited to the principles of multiage practice must be thoroughly planned (Miller, 1996; Stone, 1995). This planning applies to space and facilities as well. Adequate space must exist in order for teachers to prepare the proper learning environment. Several instructional areas need to be established within the multiage classroom: a large group meeting area, a place for small group instruction, and independent workspace. Children should be able to move freely without feeling crowded (Fox, 1997; Stone, 1995; American Association of School Administrators, 1992).

Careful attention also must be given to the development of a system for managing authentic student assessment, reporting to parents, and adding standardized testing if required by state laws or district policies. In the multiage setting, teachers dealing with widely varying
developmental levels need a comprehensive, user-friendly system of authentic assessment that is neither overburdening to teachers nor results in reduced teaching time (Anderson & Pavan, 1993). A portfolio system can meet the criteria by enabling teachers to collect information in an ongoing fashion as a part of daily learning. Portfolio assessment accomplishes three main goals: documenting student growth and progress, supporting and guiding instruction, and communicating information about students to both parents and children (Stone, 1995).

Another way to assess student growth and plan instruction is the use of learning descriptions, an assessment tool that lists student abilities and accomplishments in various content and developmental areas. With this tool, which typically is used in primary groupings, teachers can document students’ patterns of growth over time and can have a continuous record for communicating with parents.

Finally, during the planning stage, decisions need to be made regarding the continuous progress attribute of multiage education. For most children, the increased learning time in multiage programs results in extra time to accomplish necessary learning by the end of a multiage cycle, so that children who appear to be slightly behind during the first year, catch up by the end of the cycle (Grant, 1993; Stone, 1995; Mazzuchi & Brooks, 1993). Helpful activities can be built into the curriculum to support children who are experiencing specific difficulties, and there is time to revisit concepts more than once (Stone, 1995; Anderson & Pavan, 1993; Mazzuchi & Brooks, 1993). Multiage progams can be based on two classroom configurations to allow for this progress: overlapping age ranges at different levels, or combining a specific number of grade levels in each multiage classroom. Programs that have overlapping age ranges allow teachers to make decisions about moving children to the next level based on accomplished learning, as opposed to age or grade level. Programs that are based on grade level have other options to ensure continuous progress.

Consideration also should be given to the transition of students from a multiage setting to a graded setting. Eventually, children will move from the nongraded primary or elementary level into a graded system. Results from a number of multiage programs demonstrate that elementary students from multiage settings adjust very quickly and easily to the social environment, routines, and expectations of the next graded level (Anderson & Pavan, 1993).

A key step in implementing a multiage program is ongoing evaluation. Program evaluation provides valuable feedback, indicates whether goals are being reached, and offers suggestions for new strategies. In addition to monitoring student progress, schools can use an evaluation and self-assessment tool to evaluate their own progress in implementing various components of the multiage model.

Simply grouping children of a variety of ages together in a classroom will not yield the benefits documented in the research pertaining to multiage education. In order to obtain these benefits, thoughtful planning must occur (Katz, 1992). Time must be taken in preparing teachers and the community. Goals must be established to reflect the multiage philosophy and its critical attributes. Education, open discussion, and a strong commitment to realizing those goals must exist in order to create a multiage program that continues to be an important and necessary pattern of education.
GOALS:

- Administrators and teachers are able to articulate why the multiage model was chosen and what its benefits are. They maintain communication with each other and the community.

- Administrators empower school staff to become actively involved in multiage programs by providing support, professional development, leadership opportunities, and shared decision-making.

- Teachers teaching in teams collaborate and communicate frequently, and there is an increase in skill development among staff.

- Adequate materials, resources, and space exist to create and support a multiage environment.

- Teachers use a variety of instructional techniques and implement developmentally appropriate practices in the multiage classroom.

- Children of mixed ages and abilities are actively involved in learning and progress at their own pace. Cooperative learning is evident, and students work independently as well as in group settings.

- Older children have the opportunity to demonstrate helpfulness, leadership, patience, and tolerance. They model social and academic behaviors for younger children.

- Teachers, students, and parents develop a meaningful relationship by sharing common experiences over a long time. Parents become involved in all aspects of the multiage program.

- Authentic assessment techniques and qualitative reporting methods are used to assess student development, plan future instruction, and communicate with parents.

ACTION OPTIONS: Administrators and teachers can take the following steps to plan and implement multiage education:

- Provide a foundation of administrative support for the implementation of developmentally appropriate and multiage practices at the school.

- Establish a team of volunteers to initiate study and planning for the multiage program.

- Determine if the multiage model matches the needs of the students, school, and community by using an inventory of educational beliefs.

- Ask questions to determine the school’s readiness to implement multiage education.
• Organize a staff retreat to discuss beliefs and philosophies concerning multiage education.

• Schedule school visitations to observe successful multiage programs in action. Formulate questions and topics to focus on during observation of programs.

• Use a planning tool, such as Developing a Plan of Action: The Multiage Classroom from the Michigan Department of Education, to design an action plan for a multiage program.

• Design a multiage professional development program through which school staff can further their understanding of key attributes of multiage education, including developmentally appropriate practices, grouping for learning, and continuous progress.

• Rely upon the school librarian or library media specialist to lead the development of a professional library of articles, books, videos, and teaching resources on multiage practice.

• Develop educational partnerships with parents and the community to build support for multiage education.

• Consider looping as a first step towards multiage teaching.

• Consider creating and operating a multiage pilot program for one year to ease the transition to multiage education.

• Develop teaching teams to implement multiage education. Ensure that the schedule allows for finding time for professional development and team planning.

• Create or adopt a set of learning descriptions for each learning area.

• Develop qualitative reporting methods such as formal progress reports, portfolios, developmental checklists, parent-teacher conferences, and anecdotal records to inform parents about each student’s progress and development in the multiage classroom.

• Develop an evaluation and self-assessment tool for the multiage program.

**IMPLEMENTATION PITFALLS:** The multiage model is labor intensive and requires more planning, collaboration, and professional development than the conventional graded classroom (Miller, 1996; Gaustad, 1992; American Association of School Administrators, 1992; Cushman, 1993). Sufficient planning time must be arranged to meet the needs of both teachers and students. Insufficient planning, staff development, materials, support, and assessment procedures will impact the success of the multiage program (Fox, 1997; Miller, 1996; Nye, 1993).

The multiage model also requires a new approach to curriculum development and teaching. The conventional school curriculum does not address the needs of the multiage class. Teachers must be given time and resources to create a developmentally appropriate curriculum. Team teaching can be difficult for some teachers; there is a need for constant communication. Personality traits
and teaching styles must be taken into consideration when creating teams of teachers (Cushman, 1993).

Teachers who have not received professional development on working with different ages in the same classroom may initially be resistant to multiage practice. They may think of the class as a split class or combined class and try to teach a different curriculum for each grade level in the class. This type of instruction does not fit the critical attributes of multiage education (Stone, 1995). Focusing on the needs of individual children and using a multiage curriculum are essential in multiage classes.

Care must be taken when determining the composition of the multiage class in terms of student ability and age ranges. Multiage groups must be kept heterogeneous. Schools should avoid ability-grouped classes and grouping high-achieving younger students with low-achieving older students (Stone, 1995). Also, selecting a three-year multiage model, as opposed to a two-year model, can pose other difficulties; a multiage teacher's workload and time commitment increases in direct proportion to the mixed age span (Grant, 1993).

It may be tempting to begin creating a multiage program quickly. Many promising practices and innovations have been put into use impulsively without a basic understanding of critical factors. These programs have failed and made the public question valuable practices. Issues such as teacher readiness, staff ownership, parental involvement, and collaborative planning must be considered if the multiage program is to have a positive and lasting effect (Fox, 1997; Miller, 1996; Nye, 1993).

Katz (1996) addresses some of the potential risks of mixed-age grouping: Younger children may feel intimidated or overwhelmed by more competent classmates, and they may become burdens to older ones by continually asking for help. Older children may not be sufficiently challenged in the classroom, and they may become overbearing or bossy with younger children. To remedy these situations, teachers can offer reassurance to younger children that skills will develop over time; teachers also can encourage younger children to practice skills on their own instead of interrupting the older children. Likewise, teachers must remember to provide challenges for the older and more experienced children; this approach is important in every classroom, even when student age is not a factor (Stone, 1995; Katz, 1992). With regard to potential behavioral problems, the risk of bullying in mixed-age groups actually is less than in traditional graded schools because older students develop leadership skills and patience when working with younger children.

The classroom size and layout may not be conducive to multiage practice. The room should be large enough to provide adequate space for individual, small-group, and large-group work. The room arrangement should establish areas for learning centers and provide separate sections for active and quiet activities. Children should have easy access to learning materials and manipulatives (Fox, 1996b).

**DIFFERENT POINTS OF VIEW:** Although it promotes multiage grouping as an effective educational strategy, the National Association for the Education of Young Children (1996) recognizes that multiage education is only one way to achieve child-centered practices in the primary grades. Cushman (1993) suggests that schools should provide developmentally appropriate strategies in graded as well as nongraded classrooms, and children should be placed...
where it is expected they will do best. By providing a variety of options within a school, all children--regardless of class placement--will have the opportunity to experience a developmentally appropriate education.

Many educators and parents believe that single-age or single-grade classrooms are better equipped to meet the needs of children. They tout the advantages of a set curriculum designed to focus on a specific level of development, a narrower span of developmental and ability levels, and a sequence of skills taught.

Others believe that looping is a viable alternative to multiage grouping since it allows children to enjoy the benefits of working with the same teacher for more than one year while retaining the conventional graded organizational pattern.

ILLUSTRATIVE CASES: Following are examples of successful multiage programs:

- **Lincoln School, Mundelein, Illinois**, is a K-5 multiage school that uses technology, multiple intelligences, problem-based learning, and a year-round calendar in multiage education.

- The **Chimacum Intermediate Multiage Program at Chimacum Elementary School, Chimacum, Washington**, emphasizes team teaching and continuous learning.

- **Lake George Elementary School, Lake George, New York**, was restructured as a multiage continuous-progress school in 1971 and currently offers multiage classrooms for kindergarten, 6- to 8-year-olds, 8- to 10-year-olds, and 10- to 13-year-olds

- The **multiage program at Rapid Valley Elementary School, Rapid City, South Dakota**, has a Primary class for ages 5 through 7, Upper Primary for ages 7 through 9, and Intermediate for ages 9 through 11.

- **Concrete Elementary School, Concrete, Washington**, uses family groupings that may contain two or three grade levels.

- **Implementing a nongraded elementary program at Konnoak Elementary School, Winston-Salem, North Carolina**, called for the inclusion of special-needs students.

- The Kentucky Department of Education has developed the **Kentucky Primary Program** based on multiage and mixed-ability groupings, continuous progress, and developmentally appropriate practice.
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References

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MULTIAGE AND MULTI-GRADE: SIMILARITIES AND DIFFERENCES

Dennis M. Mulcahy
Faculty of Education

A multiage continuous progress program is, in practical terms, an ideal. It is a goal toward which you travel bit by bit turning theory into day-to-day success. But it involves great changes for everyone involved. It requires time, patience, courage, and commitment (Johnson & Grant 1994, p.40).

Introduction

Making sense of multiage pedagogy is no easy task. Helping others make sense of it is equally difficult. One aspect of the challenge is the fact that here in Newfoundland and Labrador we have a history of multi-grading in our small rural schools. One of the first questions I am often asked by parents and teachers is: "Is multi age the same as multi-grade?" The answer to this question has to be, "No, they are not the same." However, I am quick to add that they do have many common features. This common ground makes both multi-grade and multiage quite distinct from sniggered classrooms.

In attempting to explain the terms, I have found it an effective strategy to discuss the relevant issues under three headings: structure, ideology, and practice. Structure refers to matters primarily concerned with the organizational characteristics of the classroom. For example, the unique time frame of a multiage classroom is an example a structural feature. Ideology refers to the set of educational beliefs that underpins and supports multiage structure and practice. A belief in child centered learning is at the heart of multiage philosophy. Finally practice refers to the methods and strategies used by teachers to individualize learning in their classrooms so that the unique needs of each child can be met.

Although we can discuss these dimensions separately, they are very much interrelated and interdependent. Multiage beliefs and values impel educators to reject traditional graded approaches to education and schooling in favor of more humane alternative structures. These same beliefs dictate how learning and teaching should occur within the structure. In this essay, I will focus on the structural dimension of multiage pedagogy and in doing so I am going to indicate the similarities and differences between multiage and multi-grade. I will begin with similarities because it is always useful to start with the common ground. Hopefully, this may demystify multiage somewhat for some people, but it will also sharpen awareness of what may need to change if we wish to adopt the multiage model.
Structural Similarities

From a structural or organizational perspective multi-grade and multiage classrooms share the following characteristics:

- Both multi-grade and multiage refer to classroom situations where children of two or more grade levels are grouped together for educational purposes. (3)

- The age range of the children in both types of classroom will be greater than one year.

- In multi-grade and multiage classrooms there will be a wider range of individual differences than one would find in a single grade classroom.

- Students remain in the same classroom with the same teacher for more than one year.

- The actual composition of a multi-grade or a multiage classroom changes each year as older students move to another classroom and their place is taken by a younger group of students joining the classroom for the first time.

Most multi-grade and multiage classrooms have two or three grade levels grouped together. Interestingly, many multiage teachers actually prefer three grade levels (Stone, 1996, p.3). I have noted an occasional reference in the literature to multiage classrooms with four grade levels.

The majority of multi-grade teachers feel two grade levels are more than enough; in their view three grade levels is the most anyone should be forced to have (Gafer, 1992; Mulcahy, 1992). Although they are in the minority there are some multi-grade classrooms in some smaller and more remote schools with as many as five and six grade levels (Miller, 1989; Mulcahy, 1992.).

We still have some one- and two room schools.

It follows, obviously, that by grouping grade levels one is going to create classrooms with a greater age range than a single grade classroom. As the age range increases developmental diversity and individual differences will as well. (4) The number of years students and teacher remain together depends primarily on the number of grade levels that have been grouped: two grade levels result in two years together, three grade levels means three years. (5)

One of the most interesting aspects of both multiage and multi-grade classrooms is the way that the composition of the classroom changes from year to year. Although, as stated above, all children remain in the same classroom with the same teacher for more than one year, the same children are not in that classroom from year to year. (6) The composition of the classroom is constantly changing and this gives these classrooms a very unique dynamic.

At the end of each year in June, the older (oldest if three grades are grouped) grade level group will move on to another classroom and another teacher. They will be replaced the following September by a younger grade level group entering the classroom for the first time. The dynamic of multiage and multi-grade is that the membership of the classroom is always changing.
Both multi-grade and multiage teachers are aware of the potential educational advantages that an extended age range and time frame, characteristic of these classrooms, provide. However, both groups of teachers are also aware that these advantages are realized only in stable situations. Unfortunately, we are living through a time of sudden and rapid change and few of us know for sure what our professional circumstances will be from year to year. Some schools are closed, others get "reconfigured", teachers move or get "bumped", student populations fluctuate, district leadership changes, and philosophies of education come into and go out of fashion overnight. We live and work in difficult times and that makes long term planning uncertain.

To achieve the optimal educational advantages of grouping students of different grade levels together requires a commitment to stability and continuity. There has to be some guarantee that the organizational structure will be a permanent one. This is a major issue in the multiage literature. In distinguishing multiage from other such groupings that may be only temporary arrangements, Bingham states:

A multiage classroom is not two grades put together for convenience, perhaps to accommodate a population bulge and probably for only a year or two...It is a permanent class grouping of planned diversity (Bingham, 1995, p. 8).

In our province, in many small rural schools, multi-grade classrooms turned out to be permanent arrangements (Mulcahy, 1992). However, it has been the stated intention of those creating multiage classrooms that they be permanent.

This issue is very significant if we are attempting to interest parents in multiage education. I think they need to be given some assurance that the school and district understand why stability and continuity are important and that they are committed to a permanent arrangement.

**Structural Differences**

It is a little more difficult to describe the structural differences between multi-grade and multiage classrooms. One can define the differences as clearly as one can the similarities. Part of the problem is that one cannot make the same kind of clear and definitive statements regarding differences as one can with regard to similarities. This in itself is interesting.

Be that as it may, I suggest that there are at least two structural differences:

1. Multiage classrooms are intended to be non graded. (7) Traditionally, multi-grade classrooms have tended to be graded.
2. The intention in a multiage classroom is for students of different ages and grade levels to be socially and academically integrated into a single learning community. In traditional multi-grade classrooms each grade level group has tended to maintain (often by official directive) its distinct identity.

These differences are crucial to understanding the multiage model of education. Multi age advocates believe that the graded structure of schools and graded approaches to instruction that have dominated classrooms since the middle of the 19th century are harmful and hurtful
to children. Graded classrooms, graded curricula and textbooks, and standardized testing ignore the reality of diversity that characterizes our classrooms.

Graded approaches to schooling are justified on the (false) assumption that all children of a given age are, more or less, the same in terms of development and capability. Therefore, other than those that can be labeled as "exceptional" for some reason, all other children can be taught the same thing, at the same time, at the same rate, in the same way. This approach ignores what we know about how children actually develop and learn. As every parent and teacher knows, there is a great deal of variability and diversity among children for all kinds of reasons. Unfortunately, the graded approach to schooling tends to ignore this reality.

"Variability among individuals constitutes the area needing greatest attention," insists Miller (1994), "because [graded] schools too often underemphasize or neglect student developmental differences." Individual variability includes:

- Both the time frame for a developmental stage (that is the two-to three-year range) and those factors that mediate differences among learners, such as social backgrounds or dispositions toward learning (p.18).
- Throughout the multiage literature one can find critiques of the graded approach and an appeal for a change to a more open, flexible, non-graded approach. In Bingham's view, "uniform grade-level norms, tend to exclude those children who don't fit in, intensifying the experience of successor failure" (Bingham, 1994, p. 6). Stone (1996), citing Connell (1987), writes:
  
  In the graded classroom, children who do not meet the grade expectations feel that something is wrong with them, and those who do not progress satisfactorily are assumed to have failed, rather than see that the system has failed to meet their needs (p.12).

Noted multiage researcher, Charles Rathbone (1994) believes that in order to be more responsive to children, schools have to make changes in the way they currently operate:

- Time and curriculum must be made flexible so learning is not held hostage to inappropriate schedules of coverage.
- School organization must move away from a graded structure to a multiage structure to lessen the damaging effects that grade related status attributions have upon an increasing number of learners.

In, Children at the center: implementing the multiage classroom, Miller (1994) states that, "Ideally," in a multiage classroom, "there is a blurring of grade- and age level distinctions as students blend into a caring community of learners." According to Miller, "The defining characteristic of the multiage concept" is the fact that a "child's developmental needs, regardless of grade-level curriculum or administrative placement" (p. 2) determine the starting point for instruction and the reference point for assessment and evaluation.

Miller uses the term "ideally" because creating a non graded learning environment in an educational universe so long and deeply entrenched in the graded tradition is often a difficult task. This is a point also made by Bingham:
In moving toward a multiage classroom, it is sometimes difficult to eliminate grade level labels completely, but it is a desirable goal, particularly in avoiding the stigma of failure when a child needs an extra year before moving ahead. (Bingham, 1994, p. 8).

Are all classrooms that are referred to as multiage actually non-graded learning environments? Probably not. In some situations the term is used to simply avoid the historical stigma associated with multi-grading. In these contexts there is no understanding and/or commitment to the multiage philosophy of child centered, responsive education. Unfortunately, this misuse of the term will impede and threaten more committed attempts to implement "true" (Chase and Doan, 1993) multiage programs (Miller, 1994).

One of the chapters in Johnson and Grant (1993) is entitled "On the road to multiage continuous practice." I like this title because it suggests that we think of moving from a multi-graded (or for that matter from a traditional graded) classroom to multiage as an individual journey of exploration, discovery and transformation. I think this is important because changing from a graded to a non-graded structure in some circumstances may take some time. However, if we have a clear sense of direction and understand why we are choosing to change we can productively begin with small incremental changes.

Officially, traditional multi-grade classrooms in small rural schools operated in a strictly graded fashion. This graded approach was generally imposed by official directives (Miller, 1989; Mulcahy, 1992). The expectation was that multi-grade teachers would organize their classrooms so that each grade level group was assigned to a different space in the classroom and the prescribed curriculum for each grade level would be taught separately to each grade level group.

My research has revealed that here in Newfoundland and Labrador, individual rural teachers, some with the endorsement and help of district personnel, others acting independently and subversively, had the temerity to breakthrough the rigidity of gradedness. They became aware that the challenges presented by the unique structural characteristics of multi-grade classrooms could also be seen as opportunities to be more responsive to children's needs. In a sense, they saw the chance to make a virtue out of a necessity. Such teachers often operated with two different timetables. An official one sent to the district office detailed the required graded format and "time allotments." An unofficial one kept in the drawer of the teacher's desk reflected a more flexible and responsive approach to learning and teaching actually followed in the classroom.

Many experienced rural teachers are well aware of the potential educational advantages of creating a non-graded learning environment. Many have benignly waiting for "permission" from the "authorities" to do so. Experienced multi-grade teachers would agree wholeheartedly with Bingham's (1994) comments regarding any attempt to have "a second grade curriculum and a first-grade curriculum go on simultaneously." In her view "insisting that separate curricula continue," presents teachers with "an unreasonable task...and one that undermines the class as a community." "Amen," say many generations of rural teachers.

It is my view that many rural teachers would be more than willing to transform their graded multi-graded classrooms into non-graded multiage classrooms. All they are waiting for is "official" permission to do so and adequate professional development to prepare for the
change. They would also want some assurance that their educational leaders understand and support the implications of such a change not just for curriculum and instruction but also assessment and evaluation.

REFERENCES


Miller, B. (1994) *Children at the center: Implementing the multiage classroom*. Portland, OR: Northwest Regional Educational Laboratory.


End notes

1. Earlier versions of this article have been presented at a number of conferences in Canada and the U.S. Making sense of these topics is an ongoing process with me. I would welcome comments from readers who wish to share their views and perspectives.

2. As part of my ongoing work in the Faculty of Education, MUN, I have developed two university level courses on multiple pedagogy. These are available via the web, and thus are accessible to anyone, anywhere. Feel free to contact me for more information.

3. In the case of multi-grade, the primary purpose is so that schooling can occur in rural places; in the case of multiage, according to Miller (1994), it is "to improve learning" (p.4). In rural places, if people did not accept grouping grade levels together, schools would have to close and the children bussed out of their home community.

4. All classrooms (single grade, multi-grade, and multi-age) are characterized by an increasing degree of diversity, but the degree or range of difference will be greater in a multi-age or multigrade classroom than a single grade one.
5. In some exceptional circumstances, these time lines will be different for individual students. The issue of retention and promotion is currently a hot topic in multiage discussion groups. Some argue passionately that providing children with a "gift of time" - allowing them to stay an extra year in a multiage classroom - is fundamental to the multiage philosophy. Others argue, equally vehemently, that retention of any kind, in any kind of circumstances, is harmful to children. This later group refers to the research literature that has consistently demonstrated that retention is a very questionable practice. In multi-grade classrooms, retention policy followed whatever the current practice was in single-grade classrooms. You can explore the contrasting views of multiage teachers on this issue by going to the list serve archives and entering the key word 'retention.'

6. This characteristic distinguishes both multi-grade and multiage from the practice of "looping." Looping occurs when a teacher remains with a class of students for two years as they move from one grade to the next. For example, such a teacher has the class as third graders and then remains with them when they become fourth graders. In a looped class, the children are within a single age range.

7. "Non-graded education is the practice of teaching children of different ability levels, together, without dividing them (or the curriculum) into steps labeled by grade designation. Children move from easier to more difficult material at their own pace, making continuous progress rather than being promoted once per year. Curriculum and teaching practices are developmentally appropriate. A non graded classroom differs physically from a traditional graded one. Rows of desks do not permanently face one direction; instead, tables and chairs are frequently regrouped. Flexible grouping is a key element of non-graded education. Students are grouped homogeneously by achievement for some subjects such as math and reading. For other subjects, children learn heterogeneously in-groups. At different times, students work independently, in pairs, and in large and small groups." (Gaustad, 1992).

8. Rathbone also believes that "Classroom talk must shift from being dominated by teachers to being dominated by children so intentional conversation and activity become the medium through which thought and learning occurs."

9. There is much concern expressed provincially, nationally, and internationally, that if the adoption and implementation of multiage is not handled effectively, a promising educational concept will be labeled a failure because it "doesn't work." We have seen this happen many times before, most recently with whole language.

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Greater Brisbane Region
Strategy for Maximising Achievement
2009-2011

Our Mission
Maximising Achievement – Every School – Every Student

Our Beliefs
- Every student is capable of improvement
- Principals are responsible for the culture of school improvement and improved student achievements
- Skilled and responsive teachers make the difference for students
- Collaborative effort across the system underpins success

Our Outcomes
- Increased % of students in the higher NAPLAN bands and reduced % of students in the lower bands in all strands and age cohorts.
- Increased % of students achieving an A or B on QCATs and school reports and reduced % of students with grades D or E.

Our Strategy
Focusing on school improvement through
- Leadership and coordination
- High performance teams
- Whole schools approaches
- Quality teaching and assessment
- Intervention

Focusing on improved student learning through
- Setting high expectations for all students
- Teaching for deep knowledge and understanding
- Targeted teaching for individuals and groups of students
- Continuous monitoring

Key Expectations
That schools will
- Set targets for literacy and numeracy within the AOP taking account of NAPLAN data
- Analyse their data and realign their curriculum planning around explicit strategies to improve individual and school performance
- Have individual planning for students who fall below national standards
## Leadership and Coordination

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<th>Goals</th>
<th>Strategies</th>
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<td><strong>Regional/District</strong></td>
<td><strong>School/Cluster</strong></td>
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| All Principals are to be informed and effective educational leaders. | Implement a broad communication strategy to ensure coherent and consistent messages & vision through the provision of  
- a regional strategy  
- ongoing communication from RED and EDSs through a range of modes  
- forums for principals and school leaders | Create a school culture that fosters density and quality of leadership across the school |
| Quality learning, reflection and feedback opportunities are provided for school leaders. | Coordinate and facilitate professional learning opportunities for to build the educational leadership capacity of principals and ensure the implementation of the P-12 framework through a suite of  
- learning & development programs available to leaders and aspiring leaders to increase density and support Maximising Achievement  
- workshops on key topics related to evidence based school improvement  
- Literacy Leadership initiatives targeting Principals and curriculum leaders | Collaborate across clusters to develop a coordinated approach to strengthening a P-12 pathway |
| | | Sustain and embed the Education Queensland P-9 Literacy and Numeracy Teacher and Teacher Aide Professional Development |
| | | Build knowledge and expertise through participation in Regional Literacy Leadership programs |
| | | Enhance key curriculum leader’s capacity to ensure the implementation of the P-12, Literacy and Numeracy Frameworks |
| | | Plan appropriate professional development to build capability of all staff members |
| | | Support and train key personnel e.g. language & literacy tutors, QCAR consultants & cluster contacts, FSiM facilitators, Numeracy Mentors, GEMs, Smart Classroom Mentors, to support school, cluster, district and regional teams |
## High Performance Teams

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<th>Goals</th>
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<tr>
<td>Key teams lead, facilitate and support school based and regional action planning to meet expectations and accountabilities.</td>
<td>Establish a Maximising Achievement Regional Strategic Group to implement strategy and ensure a coordinated approach. Renew and refocus regional and district teams in key areas – literacy, QCAR, numeracy &amp; data analysis, Aboriginal and Torres Strait Islander education with a focus on curriculum planning, pedagogy, assessment, moderation and quality teaching.</td>
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<td>School leaders are active participants in district and regional teams.</td>
<td>Establish teams to address challenges related to literacy, numeracy, curriculum, assessment, pedagogy and intervention. Develop succession strategies for team renewal.</td>
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<td>Establish engagement of Principals / Key Leaders in regional strategic groups and working parties. Collaborate with networks to align professional development priorities that support schools in Maximising Achievement of every student.</td>
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<td>Access cluster, district and regional teams and key personnel to assist in planning, delivery and review of professional development. Effectively utilise expertise of staff including STLD, HOC, HODs and others including community members.</td>
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# Whole School Approaches

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<td>Continuity and sustainability underpin a shared culture of improvement, achievement and success</td>
<td>Focus the role of EDS and district/regional teams on educational leadership, curriculum and whole school improvement and provide differentiated support as required</td>
<td>Strengthen an agreed school wide approach with regard to school governance, pedagogy, curriculum, resource management, and embed in all aspects of school operations</td>
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<td>Partnerships support a whole of school commitment to improved student outcomes</td>
<td>Establish processes and procedures to sustain momentum, and align work e.g. sharpening aspects of TSR processes, curriculum planning, performance planning</td>
<td>Ensure high expectations, specific targets and supporting strategies to improve performance are explicit and evidence based.</td>
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<td>Support the sharing of best practice across schools in diverse ways.</td>
<td>Monitor progress and achievement of students and provide opportunities for moderation</td>
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<td>Acknowledge and celebrate student success</td>
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<td>Ensure continuity of curriculum across year levels and phases to support ongoing student learning and development</td>
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<td>Establish clear processes and allocation of responsibilities to minimise distractions and make optimal use of time and resources to nurture a focused learning environment.</td>
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## Quality Teaching and Assessment

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<td>All teachers will have enhanced expertise in</td>
<td>Deliver systemic and mandated training for teachers and early years teacher aides (including catch-ups for newly appointed teachers)</td>
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<td>Foster sustained learning through provision of a suite of activities to support school and system imperatives e.g. programs, short courses and workshops (including grammar, spelling and comprehension),</td>
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<td>Build capacity of school curriculum leaders e.g. HOD/HOC through seminars, workshops and conferences that model and share best practices, and support of key network</td>
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<td>Increase number of facilitators and key leaders to provide courses for teachers and support teachers. e.g. First Steps in Mathematics facilitators</td>
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<td>Facilitate and coordinate professional development in planning, pedagogy, assessment and moderation in each district, across clusters of schools</td>
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<td>Implement a range of cluster moderation events for QCATs and other assessment</td>
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<td>Implement Smart Classrooms Strategy</td>
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<td>Review and revise priorities and criteria for support (including funding) of local curriculum projects through Curriculum Support Funds and deployment of expertise</td>
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<td>Assist schools with the accessing of data for teachers to critically analyse and include regional/district presentations that model for Principals and curriculum leaders what can be done in schools</td>
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<td>All staff have increased access to ongoing professional learning aligned to professional development needs for all teachers</td>
<td>Plan for targeted, focused, and aligned professional development for all teachers and support staff</td>
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<td>Create a collaborative professional learning culture that values improved teaching practice through dialogue, self-evaluation and reflection at all levels of the school, performance targets and using a common language and framework.</td>
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<td>Foster assessment and reporting skills of teachers, consistent with common understandings of standards and expectations,</td>
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<td></td>
<td>Provide opportunities for professional teams to plan and organise for moderation within and external to the school.</td>
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<td></td>
<td>Clustering of ‘similar’ schools for: moderating, planning and professional sharing.</td>
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</tbody>
</table>

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Multi-age classrooms
<table>
<thead>
<tr>
<th>Goals</th>
<th>Strategies</th>
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<tbody>
<tr>
<td>Identified needs of all students and cohorts will be addressed by explicit, targeted and intensive teaching.</td>
<td>Provide targeted professional development for specialist staff (e.g. GEMs, STLD, AVT, HOSES etc) in literacy and numeracy and other identified areas of need (e.g. Auslan, Therapy Provision)</td>
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<tr>
<td>Effective use of resources (financial and human) will support intensive and effective local initiatives</td>
<td>Align work of specialist networks with the Maximizing Achievement Strategy particularly in Literacy and Numeracy</td>
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<td>Work with clusters of schools to undertake action research into preventative and intervention approaches for improved student achievement</td>
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<td></td>
<td>Provide quality tools, strategies and advice for diagnostic data analysis</td>
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<td>Conduct forum/s to ensure regional resourcing models and approaches are aligned to identified areas and needs and are transparent, flexible and coordinated in the deployment of resources in schools</td>
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<td>Have a common and shared understanding of the intended curriculum and the age-cohort expectations</td>
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<td></td>
<td>Use valid and reliable assessment tasks that produce evidence of student learning (national, statewide, and classroom achievement data)</td>
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<td></td>
<td>Plan for all student particularly those who fall below the National Minimum Standard. as well as for particular cohorts of students i.e. ATSI, G&amp; T, special needs</td>
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<td></td>
<td>Have processes in place to collaboratively examine the evidence produced from assessment as aggregated in student reporting</td>
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<td></td>
<td>Use evidence-based approaches that have been successful with like cohorts of students</td>
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<tr>
<td></td>
<td>Make flexible and efficient use of funds and staff to ensure achievement of school targets and goals</td>
</tr>
</tbody>
</table>
United in Pursuit of Excellence
United in our pursuit of excellence

Agenda for improvement
2011–2015

Education Queensland is committed to providing a world-class education for all students and to implementing the Queensland Government’s Flying Start reforms including promoting early literacy, transitioning Year 7 to secondary and boosting the performance of all schools.

United in our pursuit of excellence outlines Education Queensland’s agenda for improvement, detailing the strategies that are being implemented across our system to ensure that every day, in every classroom, every state school student is learning and achieving within a safe, supportive, inclusive and disciplined learning environment.

Our commitment is to the core learning priorities of:
- Reading
- Writing, including spelling, grammar and punctuation
- Numeracy
- Science
- Retention, attainment and transition of students at key junctures of schooling
- Closing the Gap between the attendance and outcomes of Indigenous and non-Indigenous students.

This focus on improvement will be through consistent implementation of these core learning priorities and strategies within an agreed statewide framework, which includes a differentiated model for supervision, support and intervention aligned to school achievement, improvement and context. To achieve this, our collective commitment will be to an unrelenting focus on improved student achievement through alignment from the centre through the region to the school.

This document, United in our pursuit of excellence, will focus all staff in state schools toward improvements that embrace our agreed core learning priorities and strategies.

Through a personal and collective commitment, underpinned by strong leadership and high expectations from all staff across the state, we will continue to deliver improved learning and achievement for all students.

School and community partnerships
High levels of student, parent, staff and school community confidence in the school’s performance and achievement

School curriculum
Consistent curriculum, planning and implementation to improve learning

Teaching practice
High quality teaching focused on the achievement of every student

Principal leadership and school capability
Instructional leadership, with an unrelenting focus on improvement
School and community partnerships – ‘the who’

High levels of student, parent, staff and broader school community confidence in the school’s performance and achievement

Schools will develop productive partnerships with students, staff, parents and their communities to support improved student learning opportunities, deliver high achievement, and promote community confidence and pride in the school’s ability to meet the needs of all students and enhance performance.

<table>
<thead>
<tr>
<th>School curriculum – ‘the what’</th>
<th>Teaching practice – ‘the how’</th>
<th>Principal leadership and school capability – ‘the capacity’</th>
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<td>Consistent curriculum, planning and implementation to improve learning</td>
<td>High quality teaching focused on the achievement of every student</td>
<td>Instructional leadership, with an unrelenting focus on improvement</td>
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</tbody>
</table>

Commitment to our core learning priorities
- Our whole system will continue to focus on improving student achievement and outcomes in:
  - reading
  - writing, including spelling, grammar and punctuation
  - numeracy
  - science
  - retention, attendance and transition of students at key junctures of schooling
- Closing the Gap between the attendance and outcomes of indigenous and non-indigenous students

Coherent and sequenced plan for curriculum
- Schools will:
  - implement the Australian Curriculum
  - plan to transition Year 7 to secondary
  - be provided with a range of resources (whole-school, year level, unit and lesson plans with sample assessment items, providing clear curriculum expectations and allocated teaching times) to support the implementation of the Australian Curriculum
  - adapt or adapt these resources to suit school context and student learning needs
  - be supported with training, professional development and coaching

Teaching and Learning Audits
- A Teaching and Learning Audit will be conducted in all state schools on a cyclical basis, to give schools and the system quality feedback to inform school and system improvements strategies

Schools will be provided with video vignettes of outstanding school practices across each domain to give schools a deeper understanding of quality teaching and learning practices

Planning for improvement
- Schools will:
  - be supported by a coordination across Central Office and Regions to ensure schools are only asked to focus on the core learning priorities and strategies
  - usesystem and local school performance data and the outcomes of the Teaching and Learning Audit to determine school strategies and priorities
  - identify targets for school and student improvement and address systemic and local priorities, both in the short and long term
  - be supported with a planning template populated with system priorities, performance data and standard text which can be adapted to meet local context
  - align and allocate resources to identified strategies to meet student needs and the core learning priorities

High quality teaching practices
- Teachers will demonstrate high quality teaching characterised by:
  - high expectations of all students
  - deep knowledge of learning areas and pedagogical practices
  - targeted teaching in response to students’ specific needs and context
  - continuous monitoring of student achievement and progress
  - a safe, supportive, inclusive and disciplined learning environment

Collaborative practices
- Collaborative capacity will be fostered across the state through teachers and school leaders working within and across schools to develop highly effective instructional practices

Consistent pedagogical practice
- Schools will be provided with examples of high quality pedagogical practice in key aspects of our core learning priorities through professional development, resources (including video vignettes) and support through key personnel

Evidence-based decision-making
- School performance data will be provided to all state schools
- Schools will analyse their data to inform whole-school and individual student improvement strategies
- Teachers will routinely use data to inform, monitor and review their classroom teaching practices and contribute to whole-school strategies to assist in identifying and addressing student learning needs

Schools will be supported through tailored support and intervention based on school context, achievement and improvement data
- Schools will establish improvement strategies and targets to monitor student and school improvement

Instructional leadership
- All principals will be instructional leaders by focusing on:
  - core learning areas
  - quality curriculum
  - student achievement and leadership
  - pedagogical practice
  - teacher feedback
  - quality assessment

Principals’ Capability and Leadership Framework (PCLF)
- The framework will assist principals in further developing leadership capabilities
- Reflective of small, medium and large schools, the PCLF provides a consistent professional language to describe the knowledge, skills and behaviours required to effectively lead an explicit school improvement agenda

Developing workforce performance
- A Principal Performance and Development Plan, based on the identified leadership and capability needs in leading the school’s improvement agenda, will be developed with and endorsed by the principal’s supervisor
- A developing performance plan will be developed for all school staff, based on school priorities and individual needs

Differentiated supervision model
- Principals will be supervised using a differentiated model informed by school context, achievement and improvement
- Assistant Regional Directors (School Performance) will moderate the supervision and support for principals to develop collective capacity and ensure consistency of practice

Capability development
- The development of principals’ leadership skills will be supported through a variety of models, resources and approaches across the system
- School leaders will engage with teachers in the classroom to strengthen and support teaching practice and contribute to improved student outcomes

Multi-age classrooms