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Creating and sustaining a multiage vision

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CREATING AND SUSTAINING A MULTIAGE VISION

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Elementary Education

by
Bonnie S. Adama

June 1995
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Abstract

Many educators feel multiage, continuous progress education is an idea whose time has come. They recognize it as a way to make education more efficient and effective. It gives administrators and teachers a way to create schools that actually fit children and the way they learn rather than requiring children to fit the schools.

The goal of this project is to give interested parents, teachers, principals, and others a concise, reader-friendly, straightforward description of multiage education. With so many people asking questions, it is hoped that this project booklet will be taken home and read in one night. Readers will come away with not only the information about multiage grouping, but also be encouraged to take the journey from the traditional graded classroom to a multiage setting where learning is built upon each child's natural pattern of growth.
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Introduction

In the mid-1800's, the revolutionary idea of mass public education created the need for an efficient, economical system capable of handling large numbers of students. Graded education - the practice of classifying and dividing students by age - spread rapidly throughout the United States and has remained the standard until the present (Goodlad & Anderson, 1987).

In the 1990's, educators and citizens are reevaluating their schools and proposing reforms to meet the needs of diverse social and economic groups. Multiage education is a key component of many reform proposals, including the Kentucky Educational Reform Act and the Oregon Educational Act for the 21st Century.

Many experimental multiage programs tried in the 1960's and early 1970's failed due to inadequate understanding, lack of administrative and community support, and poorly planned implementation. Today's multiage model is supported by additional decades of research and refined by the study of successful programs.

Multiage education is the practice of teaching children of different ages and ability levels together, without dividing them (or the curriculum) into steps labeled by grade designations. 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. Integrated curriculum fosters children's physical, social, emotional, and intellectual growth (Gaustad, 1992).

Various names have been used to describe this approach, including mixed-age grouping, nongraded education, heterogeneous grouping, and open education. In some cases, as with Kentucky's Primary Program, alternative terminology is deliberately used to avoid negative associations with the earlier unsuccessful programs (Robinson-Armstrong, 1992). Multiage education can be used with all ages but is particularly appropriate during the primary years.

A multiage classroom differs physically from a traditional one. Rows of desks or tables do not permanently face one direction; instead, tables and chairs are frequently regrouped. "Learning Centers" are scattered around the room: tables holding math, science, and art materials; a sand table with plastic toys for pretend play; a library corner with bean bag chairs and book-filled shelves.

Materials are geared toward hands-on learning. For example, instead of learning arithmetic solely from workbooks, children discover basic mathematical relationships by sorting, counting and measuring real objects.

Flexible grouping is a key element of multiage education. Students are grouped homogeneously by achievement for some subjects such as math and reading. For other subjects children learn in heterogeneous groups. At different
times students work independently, in pairs, and in large and small groups (Gaustad, 1992).

Children contribute to group projects according to their skill level. For example, in making books to display what they learned about a topic, younger children can create illustrations while the older children write the text (Katz, Evangelou, & Hartman, 1990).

Proponents of traditional graded education assume that students who are the same age are at basically the same level of cognitive development, can be taught in the same way, and will progress at the same rate. Research has discredited some, if not all of these assumptions (Gaustad, 1992).

Young children actually vary in their rates of intellectual development just as they do in physical development. They often progress at different rates in different areas of achievement and may alternately spurt ahead and hit plateaus rather than moving at a steady pace. Goodlad and Anderson (1987) state, "Children entering the first grade differ in mental age by approximately four full years." Even greater variation may be found in subsequent grades.

Swiss psychologist Jean Piaget proposed that young children are cognitively not ready to think abstractly. They learn best through active, hands-on activities with concrete materials. Research on learning has shown that, whatever the learner's age, information taught in a meaningful context is more easily learned.
than unconnected facts (Gaustad, 1992), and that individuals with different
learning styles rely to different degrees on auditory, visual, and kinesthetic cues
(Kohlberg, 1968).

In its influential position statement, the National Association for the
Education of Young Children (Bredekamp, 1987) summarized this accumulated
knowledge of child development and described appropriate teaching practices for
primary-age children. Its list of developmentally appropriate practices closely
matches the components of multiage education. The inappropriate practices it lists
are typical of much of traditional graded education. It is possible for a single-grade
classroom to be developmentally appropriate.

After reviewing studies comparing graded and multiage programs, Miller
(1989) concluded that multiage or multigraded classes are as effective as
single-grade classes in terms of academic achievement, and superior in terms of
student attitudes toward school and self. Katz et al. (1990) found that
participating in mixed-age groups has social and cognitive benefits for both older
and younger children. Cooperative, prosocial behaviors increased and discipline
problems were reduced.

Many educators feel multiage continuous progress is an idea whose time
has come. They recognize it is a way to make education more efficient and
effective. It gives administrators and teachers a way to create schools that actually
fit children and the way they learn rather than requiring children to fit the schools. By removing the arbitrary barriers and obstacles of the traditional graded structure, multiage education is able to build on each child's natural pattern of growth. It focuses on developing strengths rather than recording inadequacies. It celebrates achievement rather than creating failure (Grant & Johnson, 1994).

Multiage education is not a quick fix for every educational problem. It will move those who are ardently committed to its tenets closer to respecting what is known about how children grow and develop. It opens up the possibility of an educational system that offers all children a chance to experience success in school. It reflects the reality that learning is a lifelong pursuit, not just a school-time activity.

What are the beliefs about learners and learning of those engaged in a multiage classroom? What strategies and routines support diversity in a multiage classroom? What are some possibilities for creating a community within the classroom? How can instruction be rethought so that curriculum is beneficial to learners of different ages, abilities, and interests? What strategies and ideas are particularly suitable for educators who work with a wide range of learners? How can parents and colleagues be invited, informed, and included in the dialogue? What are the most-asked questions and concerns of everyone involved in multiage classrooms?
With so many people asking questions about multiage education, this project will enable teachers and parents to make sense of the many changes taking place in education today. There are many ways that multiage classes enhance learning for students. This can serve as a starting point for (a) teachers who are considering teaching in a multiage classroom for the first time, or (b) teachers in a single-age classroom who are striving to meet the challenges of a wide range of skills, abilities, and interests among students, or (c) parents who are thinking of putting their children in a multiage classroom.

The goal is to show those interested how successful multiage settings work, not as recipes for practice, but to demonstrate what a multiage classroom looks like when attention is paid to detail, perspective and decision-making.

Change is challenging. It is a risk. Is multiage a risk worth taking? Yes! This is the road schools must and will take. It will be a hard but rewarding journey. It is hoped that this guide will encourage teachers and parents to take the journey and also provide practical advice as to where they can get help along the way.
Review of the Related Literature

Some years ago as researcher Howard Lane (1947) watched the neighborhood children playing in his back yard, he noted that rivalry, aggression, and lack of compromise were often the order of the day when all the children gathered were of the same age. It did not matter whether that age was three, or five, or nine. However, when the children who gathered were of varied ages, cooperation and consideration predominated.

Research often begins with just such an observation. The researcher then investigates whether his or her observations or hunches are supported by objective evidence. From such beginnings, a small but growing body of research relevant to multiage classrooms has been conducted. The following review of the research will show how the practices and benefits of a multiage classroom are supported by research. The possible effects of same-age and multiage classrooms on children's social and cognitive development will be examined, and it will be argued that increased opportunities for children of disparate ages to socialize and work together deepen and enhance the effectiveness of educational environments and strategies.

The separation of children into same-age groups has become so common in schools and other settings that it is often taken for granted as part of the "natural"
order of things. Separation into strict age groups, however, is most often a system of organization imposed by adults rather than by children (Whiting, 1963).

Ellis, Rogoff, and Cromer (1981) found, upon observing the indoor and outdoor interaction of 436 neighborhood children, that the children could be found in groups of the same age only six percent of the time. However, groups consisting of children who differed by at least a year in age from one another were observed fifty-five percent of the time.

The grouping of children by a narrow age range is in all probability a result of the widespread concentration of large numbers of people into cities through the process of industrialization (Konner, 1975). Concurrent with this concentration was the development of what some have referred to as a "factory" model of education, whereby children are grouped in ways that make the delivery of information cost- and time-efficient (Katz, 1993). In some ways children are treated as objects that, when subjected to uniform treatment, will yield (at the end of their education) uniform outcomes. This model of education, when followed exclusively, is inconsistent with a wealth of recent research on what happens to the developing human brain (Huttenlocher, 1990; Kandel & Hawkins, 1992) and the kinds of educational strategies that bring about optimal learning and development.

Nevertheless, a factory model of education, facilitated by single-age grouping, is by far the most common form of classroom organization across the
nation. At the same time, children have less access to children of differing ages outside of school than in times past due to: (a) smaller family size, (b) reduced proximity to cousins and other members of the extended family, and (c) a sometimes drastic reduction in opportunity for interaction with other children in neighborhood settings.

"Does this matter?" ask Katz et al. (1990). Urie Bronfenbrenner (1970) suggested more than thirty years ago that it did matter. Bronfenbrenner argued that the United States was rapidly becoming a country segregated by age. Referring to both child-adult and child-child relations, Bronfenbrenner suggested that the segregation of people by ages was at the core of "the breakdown of the socialization process in America" (156). What Bronfenbrenner has pointed to is the much discussed breakdown of community in many parts of the United States. It is possible that many of the hardships children face today, in their families, schools, and neighborhoods, could be dramatically alleviated if schools could find ways to structure themselves to support and nurture, rather than undermine, community - to foster community not just for children, but among children.

Multiage grouping is one such strategy.

Multiage grouping is an educational strategy that has a solid history in American education (Goodlad & Anderson, 1959,1987). It is also an educational strategy that continues to gather credibility as theory (Piaget, 1977; Vygotsky, 1878) and
education research (Brown & Palincsar, 1989) accumulate on the learning process and its neurological correlates in the development and morphology of the human brain (Huttenlocher, 1990; Kandel & Hawkins, 1992; Squire, 1992). It is a strategy that fosters the social, emotional, intellectual, and spiritual growth of children. Multiage grouping is a strategy, in other words, that can help empower schools to do what they were and are intended to do: educate.

Social Development

There is increasing evidence that relationships with peers play a central and necessary part in a child's social development and future well being. Children who do not experience adequate social interaction in childhood are at risk for serious difficulties later in life including increased participation in crime, illegitimate pregnancy, depression, and school dropout (Parker & Asher, 1987). Hartup (1983) and Goldman (1986) have pointed to the possibility that what is learned socially in multiage groups differs from that learned in same-age groups, and that each type of group contributes to the child's development in unique ways. That is, each may meet a variety of different needs and contribute to the development of different social capacities. Same-age groups, for example, appear to foster the development of playfulness, friendship capacities, and aggression (Whiting & Whiting, 1975). Children's exposure to others younger than themselves, on the
other hand, elicits greater rates of prosocial behaviors including practice in parenting, caretaking behavior, and altruism (Whiting & Whiting, 1975; Lamb, 1978; Goodall, 1986; Zahn-Waxler, Friedman & Cummings, 1983).

Prosocial behaviors include helping, sharing, cooperating, and caring for or taking responsibility for another (Radke-Yarrow, Zahn-Waxler, & Chapman, 1983). It is commonly and rightly assumed that the quality of nurturing a child receives from his or her primary caregivers significantly influences the development of the child's own capacities for prosocial conduct (Radke-Yarrow et al. 1983). The multiage classroom can offer children the opportunity to practice prosocial behaviors.

The importance of "practice" as a variable in the development of prosocial behaviors such as helping and cooperating has not been examined extensively. However, it is reasonable to expect that prosocial behavior, like most other behaviors, must be practiced to be learned well. If children are given little opportunity to care for others throughout their childhood, it seems unlikely that the dispositions and skills required to respond adequately to the needs of others will magically appear when they reach adulthood.

In Raising Good Children, Lickona (1983) suggests that in some respects society has structured out naturally occurring opportunities for children to help one another. Research indicates that this is indeed the case. For example,
Radke-Yarrow & Zahn-Waxler (1986) note that attentive staff in preschools frequently step in with their own help before children have an opportunity to help one another.

"But can children learn to care for each other just as well with friends and classmates of the same age?" Teachers and parents often answer that question positively or negatively. The evidence does not suggest that same-age mates do not behave prosocially toward one another (McClellan, 1991), but it has been demonstrated that older children are more likely to behave nurturingly toward younger children than they are towards their agemates (Whiting & Whiting, 1975). This may occur for two reasons. First, the physical appearance or "babyness" of young children is more likely to make older children feel nurturing toward a child younger than themselves (Whiting & Whiting, 1975). Second, younger children are more likely to ask older rather than same-age or younger peers for help (Whiting & Whiting, 1975; McClellan, 1991). This is true for several reasons including that a younger child recognizes that an older child can often more realistically provide the help needed.

Similarly, teachers in multiage classes may be more likely to ask children to help one another than teachers in same-age classrooms. A teacher in a multiage class can genuinely use the help of the five- and six-year-olds in such tasks as trying to get everyone (including the two- and three-year-olds) ready to go outside
or down for a nap. There is a good deal an eight-year-old can do that a
five-year-old cannot do, whereas a whole classroom of same-age five-year-olds
may have less opportunity and ability to help one another. Ridgeway and Lawton
(1965) found that younger children in multiage classrooms were noticeably less
dependent on the teachers than in the same-age classes where the teacher was the
only person of greater maturity.

If children in same-age classrooms have fewer natural and genuine
opportunities to behave prosocially, there is evidence that these behaviors do not
mature and may even decrease. Knight and Kagan (1977) found that children's
behaviors increased in rivalry and decreased in altruism and cooperation as they
progressed through elementary school. In a review of published research,
Radke-Yarrow et al. (1983) found that only about half of the studies on altruism
show predicted increases in altruism with age. One possible explanation for these
unexpected decreases in altruism with age is that current structural factors in many
classrooms and in American society tend to reverse biological tendencies toward
increased altruism with age. One such structural factor may be the age
composition of most American classrooms, the vast majority of which are
composed of same-aged children.

The above research showing decreases in altruism can be contrasted with
anecdotal (Bronfenbrenner, 1970) and empirical findings (Whiting & Whiting,
1975) in that the capacity for prosocial behavior increases with age in countries where children are given the opportunity and expected to help in the care of younger children. Whiting and Whiting, for example, studied children in six countries including the United States, Africa, and the Philippines. They found that children who were responsible for helping with the care of younger siblings were significantly more altruistic than children who did not have significant responsibility for younger siblings. In a study that is also relevant to this point, Bathurst (1933) found that children who had responsibility for a pet showed more sympathetic responses to other children than children who did not have responsibility for a pet. Children, like adults, gain self-confidence and feelings of self-worth through opportunities to contribute meaningfully to their environment and other people (Katz et al. 1990).

Even if a teacher is skilled in helping children of the same age learn to help and care for one another, the quality of the care same-age children provide one another may be of a different nature than prosocial behavior between children of differing ages. Youniss (1980) found that the characteristics of kindness distributed from adult to child, child to child, or child to adult differed from one another. A notable difference was the expectation among children that kindness between children of roughly equivalent age would be reciprocated. The prosocial interaction among age-mates, in other words, is of a more contractual nature - "you
scratch my back, I will scratch yours". While not in any way negating the importance of relationships based on such parity, prosocial behavior among children of differing ages may be closer to that found between adult and child, where "repayment" in kind is not expected. Multiage interaction, in other words, may help children move beyond the contractual stage of moral development (Kohlberg, 1968) and prepare them more adequately for future adult roles such as parenting.

Researchers have shown that how well a child is liked by other children, or the "sociometric status", is a fairly accurate way of identifying children who might be at risk for a variety of serious social problems later in their lives (Parker & Asher, 1987). There is also evidence that the quality of young children's social competence accurately predicts academic as well as social competence in later grades. The risks in adolescence and adulthood include academic failure, dropping out of school, criminal involvement, and depression (Kupersmidt, 1983; Cowen, Pederson, Bibigian, Izzo & Trost, 1973; Parker & Asher, 1987).

Some research suggests that children experience greater isolation in same-age than in multiage classrooms (Adams, 1953; Zerby, 1961). Other research findings suggest that when classrooms are made up of children who are highly similar to one another, there are social "stars" in the classroom, but also more children who are rejected and/or neglected by their peers (Rosenholtz &
Simpson, 1984). Thus a few popular children may experience more friendship bids than they can reciprocate, while other children are actively rejected or left out of the loop altogether. McClellan (1991) compared multiage classrooms composed of preschool children with same-age classrooms of preschool children and found similar tendencies.

The children's acceptance by others is vital to their opportunity to learn the kind of social skills that enhance their future capacity to make positive contributions to their personal and professional communities. It is also an important key to cognitive development (Chase & Doan, 1994).

Aggression among children, teenagers, and adults is a problem of major and growing proportions in the United States. Although the complete absence of the expression of aggression, particularly playful aggression, in children's relationships is probably not desirable (Pellegrini, 1989), research suggests that typical levels of aggression far exceed what is considered optimal (Magid & McKelvey, 1987; Zigler, Taussig, & Black, 1992). It has been argued that the concentration of same-age peers is a major factor in the extremely high incidence of aggressive, anti-social, and destructive acts in United States society (Bronfenbrenner, 1970).

Research tends to support Bronfenbrenner's argument. In an international study, for example, Whiting and Whiting (1975) found that children were more
likely to behave aggressively with same-age peers than with peers who differed in age by a year or more. McClellan (1991) compared teacher ratings of aggression levels in seventeen multiage preschool classrooms with those of eighteen same-age preschool classrooms. Findings indicated significantly higher levels of aggression in the same-age classrooms.

Some might speculate, however, that aggression among multiage groups of children could be equal to or even greater than aggression among same-age groups. It might be argued that some older, bigger children would tend to bully younger children. Could the presence of older bullies lead to higher levels of aggression in multiage classrooms? What might account for the lower levels of aggression in the multiage classrooms noted by investigators above?

Studies involving East African children (Whiting & Edwards, 1988) distinguish between the distribution of aggressive versus dominant behaviors. Older children did tend to dominate their younger peers, but they were also very nurturing. Dominance, in other words, included nurturance and prosocial behavior. Pure aggression, on the other hand, was seen more frequently among same-age peers in a constellation of behaviors that included rough-and-tumble play, teasing, and insulting.

Stright and French (1988) observed the leadership behavior of mixed-age groups of children seven to eleven years old who were given the task of accurately
ordering sets of pictures. Older children in the mixed-age groups demonstrated sophisticated leadership capacities by soliciting individual and group preferences and organizing the statements and behaviors of the younger children. The leadership of the older children was skillfully facilitative rather than crudely dominating or bullying. Others have reported similar findings (Graziano, French, Brownell, & Hartup, 1976; French, Wass, Sright, & Baker, 1986).

The psychological toll for low status in a same-age group may also be greater than in a multiage group. To be low child in the pecking order in a group of five- to seven-year-olds may be at times uncomfortable, but the child knows that in two years his or her place in the hierarchy will change. Children in the same-age class, on the other hand, may be more likely to regard their status as a stable reflection of their worth and acceptance (Chase & Doan, 1994).

There is also evidence that children prefer to be taught by children older than themselves rather than by children their same age, and prefer to teach children younger than themselves (Allen & Feldman, 1976; French, 1984; McClellan, 1991). Again this may be, in part, because older children can more comfortably establish dominance over younger children and, further, because younger children can more comfortably yield to the dominance of an older child without the loss of face that might accompany submission to a same-age peer. In summary, it has been suggested that multiage grouping may foster leadership among children that
is more confident, skilled, and nurturing than leadership efforts exclusively among same-age peers.

Cognitive Development

Multiage grouping is an educational strategy that promotes the development of a fuller range of the child's social skills, which are critical to the child's current and future well being. However, the child's ability to work as a team member, to cooperate with others, to help and take turns with others, and to provide leadership is more than a set of social skills, however beneficial these skills in-and-of themselves might be.

There is evidence to suggest that cognition in higher level mammals, including humans, may have evolved to a significant extent as an evolutionary adaptation to social complexity (Humphrey, 1976). Further, there is evidence that the growing child's social interaction is important in the development of his or her cognitive abilities (Tizard, 1986). Social cognition may, in other words, lay the foundation for cognition in general within both the development of the individual person and the genetic heritage of the species (Chance & Mead, 1953; Humphrey, 1976; Jolly, 1966; Tizard, 1986). If this is the case, mixed-age groups might be
looked at as providing the child with a rich and complex social environment that contributes to greater social facility, as well as to greater cognitive facility.

Empirical findings support the supposition that children's opportunities to interact with more advanced and less advanced peers strengthens their cognitive skills. Behaviors elicited in younger children when relating to peers older than themselves include more mature and cognitively complex play (Goldman, 1986; Mounts & Roopnarine, 1987; Howes & Farver, 1987). Shatz and Gelman (1973), for example, found that the speech of two-year-olds was significantly more complex when they were speaking with four-year-olds than when they were speaking with other two-year-olds.

Mounts and Roopnarine (1987) looked at the play patterns of three and four-year-old children in same-age versus multi-age classrooms. They observed two classrooms of three-year-olds, two classrooms of four-year-olds, and two classrooms of three and four-year-olds. The researchers found that the age composition of preschool classrooms did affect the social-cognitive play patterns of the three-year-olds. In particular, three-year-olds in multi-age classrooms were more likely to engage in more complex modes of play than three-year-olds in same-age classrooms. Brownell (1990) also found that pairing older and younger children led to more complex modes of play as the children actively adjusted their behavior to that of others. Further, the older child in the groups made more
complex and frequent social overtures to their younger partners than to their same-age peers.

Piaget (1977) argued that the most critical resource for the child's advanced cognitive development is interaction with peers. The child's opportunity to argue or debate with peers requires a decentering, a capacity to understand one's own thinking, and, at the same time, the thinking of others. Piaget observed that it is with peers, rather than adults, that the child is most deeply challenged in his or her belief systems. This is because of the more or less equal footing of peers, which frees children to more actively confront both their own ideas as well as the ideas of others.

The drawback to direct instruction, or even less formal interaction with adult teachers, is the tendency for the children to prematurely acquiesce (Brown & Palincsar, 1989; Kamii, 1973), thus precluding the children's deeper consideration of potential differences in their own view of things and that of their teachers. Ample research (Johnson, Johnson, Johnson-Holubee, & Roy, 1984; Johnson, 1991; Ames, 1992) demonstrates that children think more, learn more, remember more, take greater pleasure in learning, spend more time on task, and are more productive in classes that emphasize learning in well-implemented cooperative groups than in individualistic or competitive structures. Cooperative groups are not conflict-free, however. Rather, consistent with the findings of Piaget, they are
places where peers come to deeper understandings by hearing the views of others, expressing their own views, and making cognitive accommodations to synthesize the diversity of opinion. Piaget (1977) made a convincing case that conflict among children who are not afraid to take on one another is central to advanced levels of cognitive development. However, this does not necessarily lead to the conclusion that classrooms set up exclusively with same-age peers are best at providing opportunities for optimal levels of cognitive conflict between peers. Murry (1982) found that when each child feels he or she has a valid, though different hypothesis from peers, the necessary conditions are present for fruitful intellectual interaction.

In children who are too similar in their thinking there may be little to debate about, little cognitive adjustment that either child needs to make. Shatz and Gelman (1973), looking at verbal communication between children ranging from three to four, found that the closer children were in age, the fewer adjustments the speaker made to the listener. In a related experiment on children's development of moral reasoning, Turiel and Rothman (1972) found that the maximum change in children's reasoning occurred when the arguments that were pitched to them were about one stage higher than their current level of moral reasoning (Kohlberg, 1980). Arguments pitched two stages or more above the child's current reasoning, as well as arguments pitched to the child's current level, were less effective.

Further, if an entire group of children are too close in age, the competition
for dominance may lead to far more social conflict than is optimal for their social or cognitive development. In a related argument, Palmer (1987) suggests that the conflict necessary for optimal intellectual development can only occur within a community, so that those interacting will take the time to fully consider one another's position, as well as take the emotional risks necessary for the kind of deep engagement that leads to real intellectual work. Research on the greater teaching effectiveness of those older peers who are intimates to the younger child, such as older siblings (Azmitia & Hesser, 1993), reinforces the significance of Palmer's observations about the importance of community to intellectual development.

The increased cooperation and acceptance found in multiage grouping, strengthens the likelihood that a strong and trusting classroom community will develop. In other words, multiage grouping strengthens community, community strengthens trust, and trust strengthens the courage needed to engage in deep debate with others.

It is not likemindedness, then, that leads to maximum cognitive development. Nor are large gaps in age, maturity, or skill levels likely to foster cognitive development. Rather, maximum cognitive development occurs when there is an optimal difference among those in interaction. Further, when a positive social climate is developed in ways suggested by the research already reviewed, the
sense of community that develops also promotes cognitive development. Such conditions are nourished by the multiage classroom.

The benefits of multiage grouping to children who are the younger or in-between-aged members of the group seem consistent with an intuitive understanding of the social and cognitive advantages of a mixed-age grouping. However, parents often worry about their child's continued progress as he or she becomes one of the older children in a multiage classroom. Although these fears usually evaporate when parents see a well-implemented multiage classroom, this concern deserves special attention.

Many people assume that older children will get bored or end up spending their time helping the younger children instead of learning, and that only the younger students will benefit from the multiage class arrangement. When attention is focused on individual talents and abilities, however, children tend not to be categorized by age but rather by who can do what needs to be done right now. Five-year-olds can help eight-year-olds organize equipment and eight-year-olds can help ten-year-olds edit their writing drafts. Children in such learning situations come to appreciate the talents that exist within the group regardless of age. And while it is true that older children work with the younger children, this gives them opportunities for leadership and for practicing their skills with a real audience (Politano & Davies, 1994).
It is possible that older children who experience social difficulties may be helped by the multiage classroom before formal intervention becomes necessary. Lougee and Graziano (1985) observed that children who are given opportunities to provide leadership for younger children not only assist the teacher in reminding younger students of classroom procedures, but also tend to improve their own behavior.

Furman, Rahe, and Hartup (1979) found that withdrawn children made significant and lasting increases in prosocial behavior when paired with a child several years younger than themselves. Suomi and Harlow (1975) realized similar results with rhesus monkeys who had been isolated from birth and were rehabilitated using normal monkeys three months younger than themselves. The use of the younger monkeys was found to be far superior to any other form of rehabilitation. The dramatic rehabilitative potential of pairing older children with younger ones may also be interpreted as an argument for the importance of mixed-age interaction in preventing serious social dysfunction before it has an opportunity to take root.

French et al. (1986), who examined leadership behavior in seven- through eleven-year-old children assigned to mixed-age or same-age triads, found that the older group members of mixed-age groups increased their organizational behavior and solicitations of opinion, but exhibited less opinion-giving than their same-age
counterparts in homogeneous age groups. Eleven-year-olds in a multiage group were, in other words, more sophisticated and thoughtful in their leadership when they were with younger children, than were eleven-year-olds in same-age groups.

As teachers often have noted, in the process of teaching one also consolidates and deepens one's own understanding. Likewise, children who tutor another child have been found to increase the depth and organization of their own knowledge (Bargh & Shul, 1980). Katz et al. (1990) suggest that a similar phenomenon occurs as older children help and instruct younger children in the social conventions of community life.

Conclusion

There are many unanswered questions related to multiage grouping. Just as same-age and mixed-age relationships tend to elicit and reinforce different social and cognitive skills, it might be expected that the degree of difference in age between two children would also influence the kinds of skills their interaction reinforces. It might also be expected that children at particular ages would be especially likely to evoke particular responses in most social partners. It is known, for example, that infants elicit a strong nurturing response from all age groups.
Other questions abound and include the following (Katz et al. 1990): What is the optimum age range for a multiage classroom? What is the best proportion of older to younger children in a classroom? What proportion of time ought to be spent in a multiage setting? What proportion of time ought to be spent in a multiage setting? What proportion of time ought to be spent in a multiage setting? What proportion of time ought to be spent in a multiage setting? What should the curriculum in a multiage setting look like? These and many other question are intriguing and need further investigation.

Multiage groups usually include same-age peers, with whom skills unique to same-age interaction can be practiced, while same age-groups, by definition, do not include mixed-age peers. The benefits of children's relationships with other children of the same age, then, is assumed to be of great value and is not at issue. Rather, at issue is the disproportionately large amount of time most children spend in same-age groupings in traditional classroom settings and the resulting impact on their social and cognitive development.

Support has been presented for the argument that not only do same-age and multiage interactions develop different social capacities in the child, but that each is indispensable to the child's full social and cognitive development. As formal structures and socializing agents take over what was once an informal network of multiple socializing agents of diverse ages, it is important that structures be created that are capable of eliciting those kinds of social and cognitive skills and dispositions that are desired in children.
No one would argue the importance of protein in the child's diet. And yet few parents willingly feed their children a one-dimensional diet composed exclusively of meat, for example. A variety of nutrients is critical to the health and survival of the physical organism. The research reviewed here suggests that a multidimensional social, emotional, and cognitive environment is no less critical to children's social and intellectual health. Multiage grouping is a key strategy for ensuring that children receive a full range of social and cognitive experience.
Goals and Objectives

The goal of this project is to give interested parents, teachers, principals, school board members and others a concise, reader-friendly, straightforward description of multiage education. With so many people asking questions, it is hoped that this booklet will be something that can be taken home and read in one night. Readers will come away with not only information about multiage grouping, but also a sense of optimism about the potential benefits of this form of education to students at all levels. To accomplish this goal, I have created seven specific objectives.

The first objective is to articulate the philosophy of multiage education and what is believed about learners and learning.

The second objective is to describe ways that multiage classrooms acknowledge and plan for diversity. Curricular expectations will be addressed in a range of activities sufficient to appeal to and be beneficial to different ages, interests, learning styles and rates.

Objective three will be to exemplify some ways a community of learners may be created so that each learner is supported and nurturing relationships are built among individuals in a classroom.
Objective four will be to describe many different ways student strengths, achievement, abilities and future learning needs are discovered. Assessment and evaluation strategies that provide for a range of abilities, stages of development and levels of understanding will be examined.

Objective five is to suggest ways to inform, invite and include learners, colleagues and parents into the community of a multiage classroom so that understanding and support is gained. This will lead to the comfort and security needed to take risks for learning.

Objective six will be to give answers to those questions which are most frequently asked of people who work within the framework of a multiage setting. Listening to understand and then working together to address concerns lead to better learning for students and a stronger community for all.

Objective seven will be to provide a list of resources which shall include multiage organizations, a newsletter, books, pamphlets, articles, and audio/visual where those interested can find more information.
Design of the Project

The project will consist of six chapters, one for each of the first six objectives.

Chapter one will define multiage classrooms and their advantages. The conditions needed for helping children become lifelong learners - active, independent, and self-regulating individuals - will be discussed.

Chapter two will outline the possibilities for planning and shaping a whole range of activities sufficient to appeal to different ages, interests, learning styles, and rates. It will discuss a balance between active and quiet learning times, between large and small groups and working individually, and between mini-lessons, guided practice, and free exploration.

Chapter three will describe some ways that help make a group of individuals into a supportive learning community. To be discussed will be routines that will facilitate rather than interfere with building positive relationships, sharing decision making with children, things that are done to help children learn about and appreciate one another's talents, and processes for problem solving.

Chapter four will provide some new strategies for assessing, evaluating, and reporting learning that are particularly suitable for educators who work with a wide range of learners.
Chapter five will suggest ways to work alongside parents and colleagues on behalf of children so that all will benefit. This will promote shared understanding of the intentions and purposes of the multiage setting and enhance the possibility of the goals being achieved.

Chapter six will list and answer some of the questions about multiage classes that arise again and again.

Appendix A will provide a list of resources which shall include multiage organizations, a newsletter, books, pamphlets, articles, and audio/visual where those interested in further information can go for help.
References


Chapter One

The Multiage Classroom

What is a Multiage Class?

Throughout the United States and Canada, multiage programs are increasing. Some are just two or three classrooms, while others involve the whole school. In some places, such as British Columbia and Kentucky, multiage has been mandated for a whole province or state.

A multiage class is defined as a class composed of children of different ages intentionally grouped for learning. The fact that such grouping is deliberate is important. Often a single classroom is created for economic reasons, as, for example, when a second and third grade class is combined because the school does not have sufficient children or teachers to create one class of each grade level. In this case, the teacher treats the group as two classes, each with different curricula. This is not considered a multiage classroom by virtue of its accidental grouping.

The multiage model explored here is a single learning community that becomes a cooperative, supportive, developmental unit. It is basically a classroom of children who represent two or more age or grade levels; it may include some siblings; and it is a heterogeneous group of children representing the intellectual, cultural, and economic profile of the school. It is a random, balanced grouping
from the school population, created with the support of the administration and participating teacher or teachers, the consent of the parents, and the best educational interests of the children in mind.

Multiage classes are more than just a way of organizing, however. They are a reflection of the understanding of how children learn and of how teachers can provide effective learning environments. Multiage classrooms personify education at its best in that they represent: (a) collaborative classrooms where communities of readers and writers work together to make and share meaning regardless of age, (b) noncompetitive classrooms where learning is the real focus of schooling, and (c) authentic learning environments, which truly respect children, their interests, needs, backgrounds, learning styles, personalities, and concerns.

Why Have Multiage Classes?

Multiage classes give each child an opportunity to associate and work with others on the basis of skills, abilities, interests, personality, and age. Multiage classrooms provide children with greater opportunities for a wider range of relationships and social experiences and therefore promote development of their social skills and cooperative behaviors. The varied levels of social and emotional development found among children of different ages mean they can be both supported by and supportive of one another.
When the age range among a group of children is increased so is the range of development. Children begin to see themselves and others more realistically as they come to appreciate the diversity of talents, skills, and abilities of their classmates. This leads children to use more appropriate and varied criteria than just age as a basis for building relationships and learning from one another.

Multiage classes take the focus off meeting the needs of a group of children and instead challenge the teacher to meet the needs of individual learners.

Multiage classes are sometimes called family groupings. Just as a family gains strength from the range of talents and interests of its members, the multiage class is enriched by the diversity of the class members.

Multiage classes encourage intentionally diverse communities of learners in which differences in individual strengths, needs, and learning styles complement rather than divide. Multiage classes are more likely to reflect the range of social situations in which individuals will find themselves throughout their lifetime.

Multiage classes increase a school's ability to place each child in the most positive learning environment possible because of an increased range of possible classroom organizations. Having multiage classes does not mean that single-age classes are no longer an option. Schools meet the greatest range of student needs when they offer choices to students, parents, and teachers.
What is Believed About Learners and Learning?

By the time children come to school they are highly effective learners. They have learned to understand and speak the language that is spoken in their home; they have classified thousands upon thousands of items and events in their efforts to make sense of their surroundings; they have developed excellent interpersonal skills, and, to get what they want, most of them have become very adept at manipulating the people around them.

When we reflect upon the magnitude of the learning that babies accomplish in a few short years, we may overlook that they do so without readiness tests, special lessons, or examinations. Babies' learning seems to unfold so easily and naturally that in everyday situations we rarely stop to examine just how they proceed to acquire so many skills and so much knowledge. In fact, when children enter school, we all too often act as if they did not know much about learning and had to be taken firmly in hand in order to make them start the serious business.

The multiage philosophy implies that learning begins where the child is and moves forward as the child is able. The following principles are the foundation of what is believed about learners and learning:

1. A child learns as a total person. Knowledge and skills must be learned through all areas - physical, social, emotional, and intellectual - to help children learn how to learn and to establish the foundation for continuous lifelong learning.
2. Children grow through similar stages of development, but at different rates and in different styles. Every child is unique. Different levels of development and understanding affect every learning task. Children must be allowed to move at their own pace in acquiring basic academic skills. Most will learn these in their own time by the age of seven or eight.

3. The way children feel about themselves and their sense of competence in learning impacts every learning act. The way a child receives information may be as important to learning as the information received. Methods, climate, atmosphere, and teacher attitude all affect the child's self-esteem.

4. Children learn best in active ways through interaction with the environment and with people. Teacher planning time is best spent preparing the environment for active learning. As children interact with each other, with teachers, and with a variety of materials, they apply all types of learning processes.

5. Children learn best when they are taught through an integrated curriculum that allows for pattern-building and selection of a wide variety of sensory data. Projects, learning centers, and real-life activities related to the interests of children promote learning of concepts and skills through application and meaningful practice.

6. Children cannot be given knowledge. They must construct it for themselves through continuous action in their environments. Knowledge is
constructed as a pattern of mental representations. It can only be constructed through action on materials. Each child's construction of knowledge is personal and unique. No two children, therefore, come to know something in exactly the same ways. Playful activity is the natural method of learning for young children.

7. Learning is a very social process. As children converse with others about interesting projects and ideas, they expand their language and thinking. Through conversation about the happenings in their lives, children are encouraged to expand their abilities to communicate orally, as well as through reading and writing.

8. Children learn the skills of communication and expression when they are given many opportunities to share their learning with others through a variety of forms. In a good language and literacy program, children are encouraged to expand all their communication skills.

9. Children learn math skills and processes when they are encouraged to explore, discover, and solve real mathematics problems through both spontaneous and planned activities. The math program in an elementary school should be designed to interest children in thinking and organizing experiences in mathematical ways, rather than to teach rote computation.

10. Children learn best when the classroom environment is organized but flexible, and when developmentally appropriate tasks are encouraged.
Disorganization, inappropriate expectations, and emphasis on paper-pencil activities can quickly lead to stress and related problems in young children.

The major purpose of multiage classes is to promote learning; learning that fosters independence and thoughtfulness and which becomes a lifelong endeavor. Multiage classes provide many opportunities for learning that is relevant, fun, purposeful, allows choice, and makes connections with the world in which students live.
Most schools have an entrance date and when a child passes "the wax test- 
having the right number of candles on his or her cake - he/she can come to school and begin to learn.

Some children arrive at school with their toes well over the starting line; others are way behind it. Children start on an uneven front, at different developmental levels. Being in kindergarten for 180 days or in first grade for another 180 days does not change that. The uneven front, the differences in children, and the diversity in maturity, needs, and abilities do not disappear.

A graded system implies that these differences will even out, perhaps not at first grade, but certainly by fourth grade. But differences in biological maturation rates, personalities, learning styles - everything that makes each person an individual - do not go away, not ever.

Why don't children grow at the same rate? Take a minute to think about the roots of this diversity, besides just the genes we inherit. Problems at birth affect development, for example, low birth weight or the prenatal effects of drugs and alcohol. Health problems in the preschool years such as ear infections, allergies, or serious illnesses that have kept a preschooler in bed for a substantial
period of time will have an effect. Stressful changes in a young child's family such as death, separation, moving, or the birth of a sibling can destabilize a child for a period of time.

In a traditional single-grade classroom, the more diversity that exists, the more difficult and frustrating the teaching. A uniform curriculum needs a uniform group of children.

Multiage education starts with the idea that each child is different. It assumes universal diversity. To interact with all these different children, it provides a variety of ways to learn. In a multiage classroom there are a wide range of books, writing and drawing materials, math manipulatives, and other hands-on materials. There are activity centers, work stations, and field trips. Children learn from teachers; they learn from other children; and they learn by doing things by themselves, with partners, or as a group. There is a dynamic interaction of different ages, different ability levels, and also different learning styles.

Students in a multiage classroom are grouped for instruction in many ways, some of which are also used in graded classrooms. The difference is in the flexibility of the grouping. Children are grouped for specific and temporary purposes, and frequently regrouped by different criteria.

Some curricula, such as basic reading skills and arithmetic, are most effectively taught to children of similar experience and achievement.
Homogeneous grouping for this purpose is achievement grouping. Math and reading groups in a multiage classroom include children at the same developmental level regardless of age. Regrouping occurs frequently to accommodate students who advance in spurts.

Children who are homogeneous according to one criterion typically vary widely in other ways, so they may be assigned to other homogeneous groups determined by different factors. For example, learning-style grouping brings together students with a common learning style; reinforcement grouping brings together children who need extra practice on a specific skill or task; and interest grouping brings together those who share a common interest.

There is a distinction between subjects with an internal organization that must be mastered in sequence, such as math, and subjects whose content has no intrinsic order, such as science and social studies. In science, for example, certain broad principles and processes must be understood, such as ecology; certain cognitive processes must be developed, such as interpreting facts; and specific study skills must be learned, such as how to use reference materials. In studying a topic together, students starting at different levels can learn these principles, develop these processes, and begin to master these skills or refine them to a greater degree. Learning to use the scientific method is a process that takes years,
as comprehension gradually grows. The order in which topics are presented is not significant.

Subjects like these lend themselves to heterogeneous group study in the form of cooperative projects. Tasks can be divided according to the skill level of the child. For example, if books are being made to display what the group has learned about a topic, younger children can create the illustrations while older children write the text and bind the book.

Working in this format yields a threefold benefit. Children learn about the topic, taking in as much as is comprehensible to them at their current level of understanding. They practice skills at their current level of ability - writing, drawing, organizing. Lastly, they practice social skills and learn to work cooperatively. These teamwork skills will be valuable in adult life whether the child becomes a construction worker, an office assistant, or a medical researcher.

Music, art, and language contain specific skills that must be learned, but they also have a highly individual creative element. A single stimulus may be used for children of widely varying levels of development. For example, children of various ages and skill levels can draw pictures inspired by the same piece of music, each child equally challenged though they produce art work at widely different levels of sophistication. Or, the teacher can read a story or poem aloud, lead a
group discussion on the experiences of the characters or the theme of the poem, then direct children to express their thoughts and feelings by writing or drawing in individual journals.

Meeting all the needs of children requires a variety of approaches: children working alone as with math practice or quiet reading; children working in partners, same or different age; children working in small groups, different ages together for many projects, same level for learning specific academic skills; and everybody together as they begin a new activity, share projects and have a daily story and discussion. All this reflects the learning that takes place out of school in families, extended families, and neighborhoods: learning by watching, learning by eavesdropping, learning by sharing and interacting, and learning by talking together.
Chapter Three
Making a Learning Community

Life in classrooms is an intense social experience. For six hours a day, week after week, month after month, one teacher and anywhere from twenty-two to thirty-four students (sometimes more) live together in a space the size of a large living room. The older the students, the larger the furniture, the higher the space. At best, it is elbow-to-elbow living. Sometimes learning about reading, social studies, and math is pushed to the side because the complex problems of living together cannot be worked out.

Community in itself is more important to learning than any method or teaching technique. To bring a class together, keep it together, and teach it how to learn, requires more than trusting students, calling on students to take the initiative, or valuing what students think. It requires a change in perception to recognizing the contribution social life can make to learning and then being masterful at building learning communities.

Although the concept of community in the classroom is not new, what is new is insight into why it is so important. We know now that the way human beings learn has nothing to do with silence in the classroom as a sign that productive activity is taking place. It has to do with the desire to make sense of
our experience, to join with others, to become a part of a community. It has to do with developing our expressive abilities and participating in everything that interests us, with being able to benefit from the insight and experience of others as we work at making the world take on meaning for ourselves, with living and learning in a place outfitted with opportunities to learn, a place where we can fumble and make mistakes without being scorned or laughed at. And it has to do with being responsible for our own learning.

This is what happens in a learning community. Life in a learning community is helped along by the interest, ideas, and support of others. Social life is not snuffed out; it is nurtured and used to advance learning in the best way possible. Caring and the interest of others breathes purpose and life into learning. Learning is social.

One could use the word "family" to describe life in a learning community, since the same underlying structures that appear in a healthy family occur in the classroom. Not many parents keep their children still and quiet all day long. They encourage their children to be expressive, to collaborate, to take risks, and to learn from failure by reflecting on what has happened. If a learning community is important, it would be helpful to identify the underlying structures that teachers and students use, often unconsciously, to make it all work. (I think of a learning community as something that teachers and students actively construct together.)
When students do routines and chores, celebrate, converse with one another, and work cooperatively, they are doing what is an everyday part of their lives. The living and learning that occurs in a classroom is shaped by the same cultural forms humankind has developed over the ages.

Routines and Jobs

The contributions routines and jobs make to life and learning in the community cannot be overemphasized. When a large number of people share a crowded place, productive life is possible only when the place is orderly. Routines and jobs are a necessary part of community life.

Not only do procedures that will ensure the existence of an orderly place need to be worked out, but the valuing of order has to be established. If identifying what needs to be done, working out reasonable work procedures, and deciding on who will do what and when sounds simple, think again! Few students come to school looking forward to doing their part in carrying out jobs and routines. The question of who is going to do the necessary work, meaning work that draws attention when it is left undone, has to be answered. Life in multiage learning communities is complex, and routines and jobs must be effectively executed. There is no choice. It is difficult for students to be responsible for their learning if the learning place is cluttered and disorganized.
Jobs offer learning opportunities that can provide occasions for problem solving, collaboration, and working together. They enable students to take charge, to organize who does what and make judgments about the effectiveness of their work. Jobs help students contribute to the quality of life in the learning community as well as negotiate meaning, take on responsibility, and contribute in significant ways to advancing a cooperative way of life.

Students of any age can make jobs the responsibility of the community government. Students decide what needs to be done, assign roles and responsibilities, and see to it the work is accomplished. In taking charge of identifying what jobs need to be done, planning and doing them, and evaluating results, students use language in authentic situations to accomplish important work. That is, more is accomplished than getting the jobs done.

Celebrating

The social life of the learning community is incomplete if it does not include celebrating. Whether we celebrate for two minutes, a day, or a week, we seek to join with others in lifting the spirit and fellowship of the group.

Schooling that is dominated by sober habits and efficiency fails to draw on the benefits that can be gained from playful and imaginative expression fostered by celebration. When we celebrate in the learning community, we recognize that
people have the power to incorporate the joys and achievements of other people into their lives. Celebration not only dignifies the lives of individuals and the group, it contributes to a sense of belonging.

Merrymaking and carefree enjoyment characterize special day celebrations. Routines, schedules, and work-a-day concerns are pushed to the side, community taboos are relaxed, and togetherness ranks above utilitarian acts. The mood is festive. It is a time to sing, to dance, to share poetry, and to dress up in colorful and unusual ways. Special day celebrations can be part of the festivities that occur outside the classroom, such as Halloween, or they can be rooted within the life of the learning community, such as Backward Day.

What is to be gained by playing, merrymaking, dressing up, taking the role of another, and generally engaging in foolishness? First of all there is joyful affirmation of life. Next, people can experience one another in fresh and imaginative ways not anticipated. Surely a day filled with joy and surprise and enriched fellowship are reasons enough!

Some celebrations do not require advance planning and preparation but are spur-of-the-moment. They happen spontaneously when events such as the first warm day of spring occur. Everyone gets spring fever, and the celebratory response is to take the group skipping and running, and leaping and falling, to the
park or playground. The experience can bring the group together, strengthening bonds.

Achievement celebrations, when students grow in their competence, are central to the learning community. They acknowledge that a classmate, group, or the entire community has accomplished something noteworthy. Celebrations whose purpose is to recognize success cannot be truly appreciated by outsiders. Only members of a community who live closely together can weigh the significance of such an event. Feelings of happiness, respect, and sometimes even awe flow through the group. What we celebrate in others we can find in ourselves. Such recognition makes achievement possible in all of us; we relive the celebrated events in the days ahead. Saying "Hurray, you did it" bolsters both the individual and the group; everyone moves a bit closer together when one person succeeds.

Children want people to notice that they are growing and getting older. Celebrations of growth recognize events as diverse as losing the first tooth or becoming an older brother or sister. Each is a sign of growth. In celebrating one student's growth, the physical development that everyone experiences is celebrated. Community life is strengthened by celebrating these wonders of life.

The social relationships and history of the group are enriched through celebration - thereby strengthening the social life of the learning community - when members incorporate the joys and achievement of other community members into
their lives. Celebration is perhaps our finest way of caring for others. There is a selflessness that is expressed through celebration. The other person is the focus of our attention, and we are one with them as we celebrate.

Talking

In everyday life, talk is the primary medium for learning, and for that reason, talk is an essential part of the learning community life. There is caring talk which is friendly in tone and signals acceptance and a willingness to belong. Through caring talk, community members show concern and greet and acknowledge one another. Talk of this sort is valued because it helps maintain a shared reality and nurtures a feeling of belonging.

Conversation is central to community making. To give yourself in conversation to another person is to accept them on their own terms and to listen with the heart as well as the ear. Caring for one another is the rule of community life. It is a value that is fundamental. Through conversation we learn who the other person is and how we might respond to him or her.

Discussion has a good deal in common with conversation, but it differs in significant ways. In discussion, students always focus their attention on some "thing" in order to know and understand. Judgments are made, ideas are reflected upon, points are debated, propositions are proven, and conclusions are sought.
The school day is filled with discussions. Discussion is an important way through which knowledge is uncovered and understanding gained about all subjects of study. Discussion might be held between as few as two people or include the entire class. In classrooms where the activity is controlled by commercial materials and the teacher giving directions, discussions are infrequent. That is because there is nothing to discuss when the "right" response is known in advance. But, in learning communities where students are empowered to think for themselves and have a voice in their learning, discussion of topics of study abound.

Helpfulness and Cooperation

Children need to learn social skills that make it easy and satisfying to work with other people. Skills such as taking turns, listening to each other, contributing ideas, and encouraging others need to be discussed, practiced, and continually valued and reinforced.

Few people perfect these social, cooperative skills without some help. With the changing patterns of family and community life, school, whether we like it or not, is one of the few places where children really engage with other people for more than a few minutes at a time. These skills are well worth the time and energy it takes to teach them. Research shows one of the main reasons people lose their
jobs is not a lack of technical skills but the inability to get along with their co-workers.

The multiage classroom seeks to build and sustain a community of learners by ensuring that members of the community are centered - that they have confidence in themselves and others and that they feel at home. Individuals are encouraged to feel at ease in expressing what they think and how they feel, in taking risks, and in seeking out critique of their work in their effort to grow. Students express self-esteem, can take the initiative in learning, are able to trust themselves and others, and perhaps most important, experience their existence as being of value to others. As the individual is strengthened and grows in confidence and expression, they increase their caring contributions to the group. A friendly, supportive place where all community members can reach out and connect to one another is of utmost importance.

Students are encouraged to participate in group life by joining with others in conversation and play, ceremony and celebration, routines and chores, where caring is nurtured and students are helped to see that in caring for the welfare of others their own being experiences care.
Chapter Four

Accounting for Learning: Assessment, Evaluation and Reporting

It is vital to know how well a child is doing in school. Teachers need to know as a basis for evaluating and adapting their teaching and providing children with feedback on their academic and social development. Administrators want to know to prove that the schools are doing "their job". And parents want to know both to help their child and to validate the job they are doing as parents.

As developmental instructional practice evolved, it became apparent that traditional forms of assessment did not reflect the growth of individual children. Traditional assessment methods previously used assumed that all children developed at the same rate and did not take into account children's thinking, decision making, and problem-solving skills. New assessment tools needed to be considered that would more accurately reflect a child's progress based on the assumptions of the multiage classroom.

The fundamental goal of teaching and learning in schools should be that every learner is guaranteed optimal instruction and opportunity to reach his or her educational potential. Assessment and evaluation practices are legitimate only to the extent that they serve this goal.
The terms assessment and evaluation as related to systems for educational accountability are frequently depicted as one and the same. This can create confusions and misunderstandings among teachers about the whole process and exact purposes of constructive evaluation. In multiage classrooms, assessment is defined as the process of observing and accumulating objective evidence of an individual child's progress in learning. Evaluation is defined as the process of making judgments about the effectiveness of teaching for learning on the basis of credible, objective assessment.

Within the evaluation process there are four clearly defined phases, each phase distinct from the others, yet interdependent one with the others; the quality of one will affect the quality of the others.

1. Set learning goals. Specify learning goals based on knowledge of the children.

2. Plan program. Plan specific learning experiences that will enable learners to progress toward the specific goals.

3. Assess. Observe and collect information in a variety of ways and in a variety of contexts that will show a learner's progress toward the learning goals.

4. Evaluate. Make judgments about the effectiveness of teaching for learning on the basis of this assessment information. This in turn guides and shapes the formation of new instructional goals.
Assessment

Assessment is the process of observing and accumulating objective evidence of an individual child's progress in learning.

The purposes of assessment are (a) to know the child, (b) to identify a child's strengths, (c) to observe a child's interactions with others, (d) to observe personal preferences and choices in self-selected activity, (e) to observe and record the behavior of learning, and the learned behavior, (f) to provide feedback and support for the learner, (g) to identify need for early intervention for children experiencing consistent difficulty, and (h) to provide a professional, objective, honest profile of a child's progress in learning.

The following are the beliefs about this kind of assessment:

1. Ultimate respect for the uniqueness and wholeness of each child must be at the center of all assessment procedures.

2. It is ongoing, objective, integrated, reflective, descriptive, and honest.

3. Process and product are valued.

4. It is a collaborative, interactive process, encouraging the child to develop the habit of critical reflection and self-evaluation.

5. Information is gathered and recorded in a variety of contexts.

6. Perceptive analysis of learning behaviors forms the basis for instructional decisions.
7. The teacher is the observer, collaborator, and instructional decision
maker in the classroom.

Evaluation

Evaluation means making judgements about the effectiveness of teaching
for learning on the basis of credible objective assessment.

The purposes of evaluation are (a) to guarantee optimal educational
instruction for all children, (b) to improve environmental contexts for learning and
teaching, (c) to improve the selection and utilization of resources and materials,
(d) to determine appropriate teaching approaches and strategies, (e) to set goals
for teacher support and professional development, (f) to shape school decision
making about school policy, management, organization, curriculum, and
community inclusion, and (g) to judge the effectiveness of assessment procedures
in obtaining the most instructionally useful information about learning and
teaching.

The following are the beliefs about this kind of evaluation:

1. Evaluation must be founded on value and worth.

2. The key focus is on improving teaching and learning.

3. It is an ongoing, integral, pervasive, and persuasive component of
educational practice.
4. It must be cognizant of individual and group preferred learning styles, cultural differences, expectations, attitudes, values, and knowledge.

5. It is a collaborative, interactive, descriptive process involving the learner, peers, parents, administrators, and teacher.

Children follow different paths to mastery, they move at different rates, and will arrive at different times. The goal is that they do arrive. Sensitive and systematic observations ensure that progress is constantly noted, and children are supported and encouraged along the way. The process is much the same as the excitement of watching your own children take their first steps or say their first words. As you watch their learning unfold, you do not make judgments about specific skills or right ways of getting started with walking or talking. You simply note what progress baby is making and encourage every small move ahead. That enjoyment in every sign of progress encourages your child to move ahead. A cycle of mutual enhancement - baby trying something new, parent encouraging, baby moving further ahead - helps the child to develop successfully. The same cycle is a vital part of multiage classrooms. As you note, enjoy, and acknowledge the children's moves toward mastery, they are encouraged to build on every small success and they feel safe to try new skills and tasks. Assessing progress becomes a positive way of fostering learning. Authentic assessment means evaluating that goes on continually. It reflects actual learning experiences that can be documented.
through such means as observation, anecdotal records, collections of students' work, and checklists and inventories.

Observation and Narrative Descriptions of Student Progress

A variety of organizations and educators recommend assessing student progress by observation and regular recording of narrative comments, also called anecdotal records or reports. Records can also be made using other media, such as audiotape or videotape. It is recommended that teachers record specific, descriptive comments as opposed to general or judgmental statements. For example, the comments "Jimmy is now reading with fewer pauses for word recognition than several months back" and "he is learning to write the more difficult letters in less time" are more accurate and useful than "Jimmy is doing well in reading" and "his handwriting is getting better".

Like any new good habit, kid watching and documenting may be awkward and slow at first. But it becomes easier. When it becomes habitual, it will be a valuable tool in a teacher's repertoire. It can help a teacher know a child far better than any test and can help focus instruction more effectively. It can help assess how a child interacts with a complex environment and provide data for evaluation that is not biased by the stress a child experiences when being tested. Anecdotal observations are valuable not only in communicating with parents but also with the
child. Careful observations are a sign to a child that someone cares and is paying attention to him or her.

Collections of Students' Work

Collecting samples of children's work over time provides vivid and concrete evidence of progress. In addition to samples of the child's best work - some selected by the teacher, some by the child - these collections (often called portfolios) might include children's personal background information, standardized test scores, notes on their level of achievement in various curriculum areas, sample drawings, paintings, and math papers. There may be audiotapes of the child's progress in reading aloud as well as snapshots and even videotapes of projects and performances.

These "products" of the child's learning are selected for the portfolio not only as examples of the best the child can do but also to document the process. Teacher, child, and family can all see how the child has grown and developed. The portfolio will also include notes based on the teacher's observations. These too will be recording the process not only of writing, reading, and figuring, but also of learning such physical, social, and emotional skills as developing small muscle coordination, making friends, and handling conflict.
Another valuable element in a portfolio is the child's own evaluation of what he or she is learning. This is often in a simple written form, sometimes done alone, sometimes as a part of a teacher/child conference. Developing ways that allow children to assess their own progress helps to empower them.

A good portfolio like this gives the teacher material to evaluate the progress a child is making. If you are looking at skills, you can judge which the child has mastered, which are just emerging, which need reinforcement, which might be introduced next. But beyond skills, a good portfolio will give signs of understanding, of connections the child has made or might need to make. It can give insights into the child's learning style.

Checklists and Inventories

Charts, checklists, running records, and inventories help teachers feel comfortable that they are teaching what they should and covering all the bases. One of the best ways to begin is to collect and look at several different ones and then make your own. The process of creating your own checklists or inventories will help you become conversant with developmental patterns and provide a good background for your observations. Another reason to become familiar with developmental continuums is that families want to know where their child stands in relation to other children of the same age both in the school and generally.
Charts, checklists, and inventories describe behavior, skills, and concepts children usually master within certain age ranges, rather than listing specific achievements expected of all children by specific ages. Parents can see how their child's progress compares to these general normative ranges, while being encouraged to accept that some variation from area to area is normal. This also avoids better-or-worse comparisons with the child's classmates.

**Reporting**

Types of reports vary in form and frequency between jurisdictions. Regardless of the format there are some things that can improve the quality of reports. In multiage classrooms, reports should describe what children are able to do, indicate learning and developmental needs, and suggest ways to support or challenge each learner. To make reporting more learner-centered, teachers combine collecting evidence of learning, informal reporting, and student reflection to form a foundation for a conference with the child, parents, and teacher where all participants meet to discuss the students' abilities and achievements, learning needs, and future learning plans.

Reports are more effective when they (a) have a collection of evidence (notes, portfolios) upon which to base evaluations, (b) include support for what is said with samples of classroom activity, (c) include quotations from students' work,
(d) put the report card in perspective by also providing samples of children's work, and (e) have the child listen to the report before it goes home and/or the child is actually leading or an active participant in a conference.
Families’ support of schools and teachers was once something that could be taken for granted, but no more! Even though it cannot be counted upon, a close link between home and school is more important than ever before. A multiage program provides both a challenge and an unusual opportunity in this regard.

The challenge is that students’ families must understand the multiage program. Multiage classes exist within a larger context - a community of learners and colleagues, parents, and residents. By inviting, including, and informing others, their understanding and support is gained. This gives the comfort and security needed to take risks for learning. When others in the community understand and appreciate multiage classes and the experiences such classes provide for students, the learning can proceed.

Change creates anxiety. Because multiage classes may be different from familiar graded organizations, everybody needs to be reassured that students are learning the basics and that grouping students in a multiage classroom is positive for students and their learning. The goal in inviting, informing, and including others, then, is to help them understand that the intent of multiage classes is to maximize advantages for children.
In a multiage program where a teacher has a child for more than one year, there is more time in which to build a relationship with the parents or family. Those families who are slow to become involved during the first year may often become actively involved in the second or third year. Those second- and third-year families are invaluable to a teacher in reaching out to new families and helping them understand the program. When parents or families understand the program and are happy with it, they develop a sense of pride and ownership that gives the teacher and the school the kind of support they need. Communication with family can be achieved through meetings, newsletters, conferences, mailings, inservices, social events, and phone calls.

Successful multiage programs bring parents in as partners from the beginning. Parents are not only informed about school practice, but they have a role in this program. Multiage programs provide a unique and golden opportunity, perhaps even a mandate, for parental closeness to a child's education.

Homework

Homework has a more important role to play than just practice and drill. It is a vital connection between school and home. Multiage teachers need to look at what aspect of a school activity can be extended into something children could do at home with a family member. For example, if the children have baked muffins in
school, the teacher might send the recipe home and suggest they do it again with someone at home. With this goes a note that explains what children are learning about reading a recipe, working with measurements, and combining ingredients.

Book bags and writing briefcases are a form of homework that go on through the year. In each bag there are one or two books and children's magazines for someone in the family to read with the child. Some form of response log can be included and also simple instructions as to what to do and when the book bag is due back at school. The writing briefcase includes writing and drawing materials and instructions about story projects or letters a parent and child can do together. Math puzzle bags also work.

Before beginning this kind of homework, it is important to brief families and let them know what is expected of them, what they should expect of their children, and why this kind of homework is important. If homework is something a child can share with the family, there can be a sense of accomplishment for the child and a better understanding among family members of how and what the child is learning in school.

Parents in the Classroom

Multiage programs can build parent support by providing an open door policy and by letting them know they can make a positive difference. Parents are
asked to make a commitment to help in many ways - preparing materials, sharing
t heir expertise with small groups, listening to reading, editing writing, checking off
work, and assisting with projects. The advantages of this kind of parent
involvement include the following: (a) the student-teacher ratio is lowered, (b)
teachers have help in individualizing activities to meet student needs, (c) positive
parent attitudes are developed toward education, (d) parents are able to see the
different ways children learn, (e) opportunities are provided for children to learn
from other adults, (f) diversity is added to the class as parents share their
experiences and talents, (g) parents observe teachers modeling positive discipline
techniques, (h) an informal, relaxed relationship is built between home and school,
(i) parents see their children in a school environment and are better able to
understand their child's abilities, and (j) teachers are given insight into a child's
home life.

In order to familiarize parent volunteers with class routines, workshops
should be offered that help parents learn how to ask higher level questions, work
with math materials, and help children edit their writing. Those parents already
involved in the program assist new parents at the workshop.

Parents are the child's first and most important teacher. Multiage
classrooms acknowledge this and invite parents to be active partners in the
education of their child. They complement the teacher's role by working with their
child at home and by taking part in the life of the classroom and the school in a variety of ways.
Chapter Six

Responding to Questions

Questions are important. The questions teachers and parents ask inform us about their concerns. Concerns should be taken seriously and should be addressed in a realistic fashion within the constraints of a school setting, as well as within the framework of a multiage learning experience. Listening to understand and then working together to address concerns lead to better learning for students and a stronger community for all.

Because the same questions about multiage classes arise again and again, this chapter will give answers to some of the most frequently asked. It is hoped that these will help others respond to questions and engage in dialogue with parents, colleagues, and community members.

Q: How does increasing classroom diversity lead to enhanced learning opportunities?

Teachers who struggle to meet all the needs of their children in conventional classrooms cannot comprehend how they could possibly do more in a classroom that is even more diverse. The notion of increasing the diversity in their classrooms seems absolutely irresponsible to them. The message of a multiage
classroom is that it is accomplished by teachers taking a different kind of responsibility for their children's learning. They turn more learning responsibility over to their children and they insure that the opportunities and models are present. What they guarantee in this exchange is that they, the teachers, will have interesting things to pursue in the classroom and the children will have some choice in what is to be learned. The children also have lots of different models for going about their learning because of the mix of children in the classroom. Teachers have given children things to learn that are valued in the children's eyes and have done so in a manner that ensures a reasonable amount of success. In short, they have built a classroom environment that creates intrinsic motivation. And they have made sure there are plenty of opportunities for the children to learn from each other in a predictable classroom setting. They carry checklists of required skills and content in their head and record progress notes on clipboards kept on their desk or placed in strategic locations throughout their rooms. They keep an eye on what their children know academically. One way or another, whether it is over a one-year period or a three-year period, the "have to's" are addressed. They are taught or learned as a consequence of children learning interesting things. The increased time with one teacher means time has become variable and learning is more of a constant. Graded settings seem to make time constant and learning variable.
Q: Will a "multiage style" work in a single grade classroom?

Of course. All classrooms contain a wide diversity of learners and learning needs. Diversity exists in every class, and every teacher needs to consider it. The challenge of multiage classes pushes the thinking of teachers and acts as a signal to open up instruction. The challenge is to constantly recognize and plan for diversity. If differences are considered strengths, then teaching to those differences is not only valid but essential, no matter what the age range of the students.

Q: How do multiage teachers handle curriculum requirements for two or three grade levels in one classroom?

As teachers plan instruction for multiage classes, the issue of what content to teach naturally arises. One teacher reported that when she taught a group of five to seven-year olds, she simply concentrated the first year on the content required by the district for kindergarten; the second year, the content required for first grade; and the third year, the content required for second grade. The following year she started the cycle over again. All children, therefore, were exposed to all required content, and there was no overlap. Another teacher selected content required for all levels of children within her class, combined and
selected broad areas, and taught similar content each year, going into more depth and breadth each succeeding year.

Using an integrated curriculum, and trying to involve all different subject areas and the content from those areas into one topic, seems actually to lessen the effort the teacher has to make to reach all the different content areas. Keep in mind that content subjects are simply the modes or means of teaching the processes the students need. After all, all children in one grade level do not come with the same experiences and are, therefore, not going to leave any content with the same information. This is similar with any collection of children, regardless of the grouping pattern.

Q: Are the oldest or brightest children bored or held back?

Many people assume this, and that only the younger students will benefit from the multiage class arrangement. When attention is focused on individual talents and abilities, however, children tend not to be categorized by age but rather by who can do what needs to be done right now. Five-year-olds have been observed helping eight-year-olds organize equipment and eight-year-olds helping ten-year-olds edit their writing drafts. Children in such learning situations come to appreciate the talents that exist within the group regardless of age. And this gives them opportunities for leadership and for practicing their skills with a real
audience. Teaching something to another person forces the teacher to bring to the conscious level all that she or he knows about something, and to become thoughtful about what she or he does not know or clearly understand about the topic. Good and challenging teaching is the secret to keeping all children meaningfully engaged, regardless of group or placement within the group. Good teachers find ways to challenge the brightest students, including letting them explore their own interests.

Q: Can anyone teach multiage?

Probably not. Six preconditions are necessary:

1. The teacher must believe children can take responsibility for their own learning.

2. The teacher must know how to provision a classroom for children who want to learn.

3. Resources must be available, though not as many as teachers sometimes presuppose.

4. Tasks of classroom management and organization should be second nature to the teacher.

5. The teacher must see him or herself as a learner as well as a teacher in the classroom environment.
6. The teacher must have a desire to do it.
Appendix A

Resources

Multiage Organizations

National Alliance of Multiage Educators (N.A.M.E.)

Ten Sharon Road, Box 577
Peterborough, NH 03458
1-603-924-9256

N.A.M.E. is a networking organization for educators who want to share ideas, information, and experiences with others who have a similar interest in multiage and continuous progress practices. N.A.M.E. is also a source of information on books and audiovisual materials about multiage. Membership is open to those considering multiage as well as those already teaching and supervising it.

International Registry of Nongraded Schools (IRONS)

Robert H. Anderson, Co-director (with Barbara N. Pavan)

PO Box 271669
Tampa, FL 33688-1699

IRONS is housed at the University of South Florida. It has been established to gather information about individual schools or school districts that are either in
the early stages of developing a nongraded program or well along in their efforts. It's purpose is to facilitate intercommunication and research efforts. There is a phase one membership and a full membership.

The Society for Developmental Education
Ten Sharon Road, Box 577
Peterborough, NH 03458
1-800-924-9621

The Society for Developmental Education (SDE) presents workshops and conferences throughout the year and around the country on multiage, whole language, authentic assessment, and related topics. SDE sponsors an annual International Multiage Conference each July.

Newsletter
MAGnet Newsletter
805 W. Pennsylvania
Urbana, IL 61801-4897

The MAGnet Newsletter provides information about schools that have implemented multiage practices.
More Information About Multiage - Books, Pamphlets, and Articles

Often teachers ask for "two or three books to start with". Like all choices this would leave out many others that are equally valuable but in different ways. For this reason, a full bibliography with brief annotations has been prepared. However, several highly recommended articles or books have been indicated with an asterisk.


Calkins, Trevor. "Off the Track: Children Thrive in Ungraded Primary Schools". The School Administrator (May 1992).

Chase, Penelle, and Doan, Joan. Full Circle: Re-envisioning Multi-age Education. Portsmouth, NH: Heinemann, 1994. The authors note the historical roots of the multiage movement and describe their personal endeavors in multiage education.


*Gaustad, Joan. "Making the Transitions From Graded to Nongraded Primary Education". Oregon School Study Council Bulletin, 35(8), 1992. These two (see below) pamphlets' concise overviews are enhanced by examples from specific schools, 42 pages.


Kentucky Department of Education. Kentucky's Primary School: The Wonder Years. Frankfort, KY. 155 pages.
Kentucky Education Association and Appalachia Educational Laboratory. Ungraded Primary Programs: Steps Toward Developmentally Appropriate Instruction. Frankfort, KY: KEA, 1990. Summary case studies of 10 ungraded primary programs with a resource section and samples of strategies used, 100 pages.


*Rathbone, Charles; Bingham, Anne; Dorta, Peggy; McClaskey, Molly; and O'Keefe, Justine. Multiage Portraits: Teaching and Learning in Mixed-age Classrooms. Peterborough, NH: Crystal Springs Books, 1993. A penetrating glimpse of how effective multiage classrooms work and how teachers see their roles in these classrooms, 185 pages.

* Society for Developmental Education. Multiage Classrooms: The Ungrading of America's Schools Peterborough, NH. 1993. A compilation of recent magazine articles, reports on research, and descriptions of 11 different classrooms, including such things as evaluation checklists, 190 pages.

Audio/Video

Anderson, Robert, and Pavan, Barbara. **The Nongraded School.** Bloomington, IN: Phi Delta Kappa. An interview with the authors of *Nongradedness: Helping It to Happen.* Video, 30 minutes.


Grant, Jim. **Accommodating Developmentally Different Children in the Multiage Classroom.** 1993. Keynote address at the NAESP Annual Convention. Audio-cassette available from Chesapeake Audio/Video Communications, Inc. (6330 Howard Lane, Elkridge MD 21227, product #180).


Province of British Columbia Ministry of Education. **A Time of Wonder: Children in the Primary Years.** Victoria, British Columbia. Video.


United Learning. **Mixed-Age Grouping at the Olive- Mary Stitt School.** Niles, IA. Video.