

## The Advantages and Disadvantages of Multiage Classrooms in the Era of NCLB Accountability

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### UPCOMING POLICY BRIEFS AND SPECIAL REPORTS . .

- ✓ *The Effectiveness and Efficiency of Charter Schools in Indiana*
- ✓ *The Excellence Gap Examined*
- ✓ *Public Law 221: Is Indiana's Accountability Law Working or is it Another Passing Education Reform Fad?*
- ✓ *Open Enrollment Policies of the States*

### INTRODUCTION

For a great portion of the history of the American education system, multiage education was the norm in one-room schoolhouses throughout the nation. Prior to the common school reforms of the 1830s and 1840s, the term "multiage class" was defined broadly; it represented a single class in which students of different ages studied as separate grade/subject groups or as a whole group, usually for administrative or economic reasons. The current graded, curriculum-centered approach in the U.S. appeared during the mid-nineteenth century with the rapid economic development and massive immigration into the country. Concurrently, some innovators tried to develop child-centered education, which focused on applying a developmentally appropriate practice in a more social and natural learning environment. These efforts led to the current scheme of multiage education, teaching students in a cross-grade group as a whole class and emphasizing individual progress through a developmentally appropriate curriculum (Lloyd, 1999).

The multiage program movement in the U.S. peaked in 1990, a year in which the philosophy was embraced by the Kentucky Education Reform Act (Pardini, 2005). However, in recent years, some schools have discontinued their multiage programs due to the grade-level standards and testing requirements imposed by the No Child Left Behind Act and most states' accountability laws. Although the number of these classrooms has declined recently, many educators still embrace the multiage philosophy. Some schools use multiage classrooms as an alternative learning environment for students, while others choose to use multiage classrooms school wide. Although the multiage education philosophy is supported to

some extent by research, multiage programs face difficulties when being implemented into schools and classrooms. With regard to the benefits and obstacles of multiage education, it is important for practitioners to consider the evidence to implement and operate multiage classrooms in a way reflective of research and best practice.

The multiage education philosophies have been supported by much of the historical research and adopted by many schools all over the world. More recently, however, Mason and Burns (1996) argued that instruction in multiage classes was less effective, since the multiage classes usually had higher achievers and more experienced teachers and the negative effects were masked by this selection bias (Mason & Burns, 1996). Veeman's research (1995) contends that there is not a significant difference in the quality of instruction between models (multiage and single-grade classes) if the class size is controlled and teachers are trained to teach through appropriate methods.

The current point of contention is whether multiage groupings help increase children's academic skills, and so far, the results of the few available studies are inconsistent. Slaton (1997) suggests that the forced assignments for both teachers and students in multiage classrooms might contribute to negative academic outcomes in some situations (Slaton et al., 1997), while Veeman (1995) attributes the prevailing confusion about multiage education to the inconsistent definition of multiage education. According to Lloyd (1999), the wide range of ways multiage groupings are implemented makes it difficult for researchers to generalize the academic impact of multiage education (Lloyd, 1999).

The benefits (perceived and real) of the idealized model of the multiage program are many, including: helping to develop students' social, emotional, and verbal skills and self-esteem; enabling students to learn at their own pace; building a caring child-centered and project-based learning environment; and improving student attitudes toward school and school work, which results in increased attendance, etc. Despite these outcomes, the obstacles and problems of program management and differentiated instruction may be the reasons for a deliberative and cautious approach to the selective use of multiage classrooms. In this Education Policy Brief, the advantages and disadvantages of multiage education are examined and some state programs are highlighted to deepen our understanding about multiage education programs and how to implement them more effectively.

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## BENEFITS AND ADVANTAGES

Educators may be attracted by the benefits that an idealized model of multiage classrooms can bring to schools. An idealized model creates diverse yet balanced groupings of students of mixed ages with different abilities, including special needs and gifted students. The enhanced social and natural settings in multiage classrooms can help raise students' social and emotional skills. Research on early childhood multiage grouping (Logue, 2006) found that student disobedience was considerably less prevalent in multiage groupings than in single-age classrooms; and because of higher rates of language exchange among mixed-age children, those in multiage groupings had higher language development as well (Logue, 2006). More dated research also supports the finding that students in multiage classrooms show significant gains in reading and language skills (Skapski, 1960). Although current research is lacking to substantiate that there are significant academic achievement gains in multiage classrooms, some evidence does suggest that children in multiage classrooms achieved a higher cognitive developmental level at a faster rate than those in classrooms of same-age peers (Frosco et al., 2004). Furthermore, including students of different ages in one classroom creates a caring environment, as it encourages older

students to serve as role models or mentors to help their younger peers.

Since teachers are usually required to teach the same class for approximately two to three years in multiage settings, they become more familiar with students and their families, potentially resulting in a strong sense of continuity. Such an environment might help to build a connection between families and schools as well, which could lead to better teacher-parent relationships and increased parent involvement (Miller, 1994). Research has also shown that on the first day of school, both students and teachers who were in multiage classrooms in an elementary school felt more relaxed, calm, and comfortable than those in single-age classrooms (Fu et al., 1999).

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***The current grade-based academic standards and high-stakes testing might have solid correlations to curriculum-centered instruction, but by using the same curricula to teach diverse groups of students, they might neglect some students' needs, especially those of high- and low-achievers.***

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The most attractive advantage of the idealized multiage classroom to educators may be that it is aligned with the belief that students should learn at an individual pace to reach their full potential. The current grade-based academic standards and high-stakes testing might have solid correlations to curriculum-centered instruction, but by using the same curricula to teach diverse groups of students, graded education might neglect some students' needs, especially those of high- and low-achievers. By applying multiage philosophies to classrooms and implementing differentiated

teaching strategies to meet all students' needs, educators might have increased motivation to focus on the progress of individual students rather than their own progress in moving through the adopted textbooks and sticking with rigid course calendars. In addition, a student-centered and project-based learning environment is more likely to be established in such settings because students of different levels can pay more attention to individual projects, which are carefully designed to challenge their own knowledge and abilities, in contrast to a common curriculum, which does not focus on individual abilities (Aina, 2001). It has also been shown that such a caring, individual-emphasized, project-based community can improve student attitudes toward school and school work, decrease discipline referrals, increase attendance, and improve peer relations among students (Veeman, 1995).

The student demographic to reap the greatest benefits from multiage classrooms varies from disadvantaged students to high-ability students. Although there are challenges to establishing and managing multiage programs in high-poverty schools, such schools have reported success with the programs after careful planning (Carter, 2005; Melliger, 2005). A caring learning community might be even more helpful to students who encounter more troubles outside of school. Regarding high-ability students, a multiage class can be a desirable option for them as well. Although programs for high-achievers exist in a variety of forms, such as after-school activities, summer camps, honor classes, etc., they often include a diverse population of various ages. In this case, differentiated curricula and instructions are necessary to meet all of their needs (Lloyd, 1994).

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## OBSTACLES AND PROBLEMS

Although many educators agree with the philosophies of the multiage classrooms, some are skeptical of multiage programs because of the difficulties of implementing and operating the programs. The first barrier is usually dissatisfaction and rejection by parents. Mixing their children with children of other ages raises concerns about the quality of instruction. Parents of older students tend to think that their children will

learn less, while those of younger ones worry that their children might be challenged too intensely and lose confidence in their learning abilities. Often the parents involved more in school life are the ones who promote and prefer to have their children in multiage classrooms. Thus, this situation might produce multiage classrooms full of privileged and affluent students and could cause them to become homogeneous groups, not aligned with the philosophy of multiage education programs.

Teacher buy-in and preparedness are important considerations, too. Many teachers report having almost no preparation for teaching students of different ages, and about 8 in 10 teachers oppose differentiated instruction, which is to adapt the curriculum to meet all students' needs. They doubt their abilities to assign the groups, carry out the materials, and efficiently create group work among students of different abilities and ages (Farkas & Duffett, 2008). The increased workload is also a point of dispute. Even if teachers accept the arguments in favor of multiage grouping and start teaching in multiage classrooms, some have misunderstandings about the program and do not implement it correctly. In addition, relations between staff members may be strained. Since teachers who have had more extensive training and professional development usually have more opportunities to teach multiage classes, an experience gap between those who teach single-graded classes and those who teach multiage classes may result, leading to feelings of superiority in multiage groups. Also, teachers who are opposed to change can undermine well-meaning multiage classroom teachers.

Administrators may also experience difficulties with multiage classrooms. Because of the federal and state accountability laws, such as Indiana Public Law 221-1999, students are required to take standardized tests by grade level. Multiage classrooms, which blur the grade level standards, make this difficult. Furthermore, many principals reported that it was difficult to operate two types of structures in one school. Multiage groups often need special field trips, school schedules, equipment, etc., and have to be separated from the events which are designed for specific grades. School budgets encounter problems as well, in that it is difficult to fit the multiage programs

neatly into the traditional organization for schools (Kolstad et al., 1998).

Some contend that because of parents, teachers, and policy constraints, multiage classes usually have better teachers, more advantaged students, and other perquisites, which lead to feelings of superiority among students. Yet, some schools choose to implement multiage classrooms as a "dumping ground" for students who "need more time" which results in low self-esteem for students. As discussed above, an idealized model of multiage classrooms is not easy to achieve, and to some extent, it is not aligned with current regulations and policies.

Despite these limitations, there are a number of successes reported as well. Schools which effectively operate the multiage programs often plan ahead, introducing the programs to parents, educating teachers, and offering teachers extensive, ongoing professional development. Although the multiage classroom is not perfectly aligned with the current policies, many schools have implemented it and shown rapid progress by doing so in the correct way, which conforms to the multiage philosophy of a child-centered approach.

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### KENTUCKY MODEL OF MULTIAGE PROGRAMS

The 1990 Kentucky Education Reform Act established a statewide ungraded primary program with emphasis on the delivery of multiage and multi-ability learning experiences for all primary students. The program started in 1990 and was modified in 1996 to give schools more authority to structure the program. Legislation passed in Kentucky in 1992 specified seven main attributes to be included in every primary program: developmentally appropriate educational practices, multiage and multi-ability classrooms, continuous progress, authentic assessment, qualitative reporting methods, professional teamwork, and positive parent involvement. Regional service centers were established in 1992 and included a primary program consultant to provide professional development for school district personnel; however, the services were discontinued in 2003 because of lack of funding and support (J. McCowan,

personal communication, November 12, 2008).

According to the Kentucky Demographic Survey of the Primary Program used to evaluate the primary program between 2001-2007, over time the program was found to improve students' academic achievement, increase teacher's preparation time before classes and use of various types of assessments, and improve parents' involvement in their child's education. Nevertheless, the use of multiage classrooms in Kentucky has been decreasing since 2001, and predominantly single-grade classrooms have been increasing (Demographic Survey, 2007) (see the Policy Perspective letter by Joe McCowan on page 4 for more information about the Kentucky experience with multiage education).

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### MICHIGAN MODEL OF MULTIAGE PROGRAMS

The Michigan State Board of Education announced a new grant initiative in 1994 for the establishment of non-graded continuous progress programs for students in multiage classrooms. For a time, multiage programs flourished in Michigan. In 1995, the Michigan Department of Education estimated that one in five districts implemented the multiage settings; three years later, more than half of the districts began or expanded upon their multiage models (Fox, 1998). However, state funding for multiage programs ceased in 1999, and a year later, the Michigan Department of Education stopped the initiative and the encouragement of multiage grouping. Although the multiage classrooms were perceived to be quite effective in helping students make progress, a reason cited for their discontinuation in Michigan was the argument that they are not compatible with grade-level content and annual testing (L. Hansknecht, personal communication, July 1, 2008).

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# Policy Perspective

## PRIMARILY SPEAKING IN KENTUCKY

Joe McCowan



Education reform continues to influence many educators across our nation and the history of these efforts can be looked at closely as we make future decisions in education. In 1990 the kindergarten through third grade primary program in Kentucky was influenced by positive decision making from educators truly searching for a new and innovative way to provide a structure of learning best suitable for young children as part of the Kentucky Education Reform Act. As a result of this reform, new legislation was adopted into law that created the ungraded primary program for all schools in Kentucky as a prerequisite to entering the fourth grade. Within this new primary program structure, a strong emphasis was placed on providing multiage and multi-ability learning experiences for all children in Kentucky.

In 1992, new legislation established the critical attributes to be included in every primary program, commonly referred to as the “seven critical attributes.” The seven critical attributes include: developmentally appropriate educational practices, multiage and multi-ability classrooms, continuous progress, authentic assessment, qualitative reporting methods, professional teamwork, and positive parental involvement. This legislation is still in place and truly outlines what must be included throughout the implementation of the primary program. The established seven critical attributes are the most important part of the primary program legislation as they define what shall be accessible for all primary students in Kentucky.

Along with the newly established legislation, the primary program was originally supported with many models and resources for educators who were grounded in research methods tailored to the ungraded structure of learning for young children. There was a sense of coherence among primary programs, and regional support was available to strengthen networks of teachers through this new type of learning structure. This learning structure was supported by educators who were using a very proactive approach to teaching and learning that was collaborative in nature. Consistent communication was crucial to success that included consistent delivery of necessary information for all stakeholders. As a result, students’ achievement outcomes improved.

The ungraded primary program I have just briefly described continued on a similar path from 1990 until 1996. In 1996, further legislation was added to the primary program as a response to many concerns from educators that more flexibility was needed. As a result, the Kentucky General Assembly passed a bill that states each school council, or, if none exists, the school shall determine the organization of its ungraded primary program including the extent to which multiage groups are necessary to implement the seven critical attributes and meet the needs of individual student needs. Upon the passage of this legislation, each school would now be given more authority to determine the primary program structure to be implemented.

As the accountability has shifted among the primary program requirements, so has the amount of support that has been offered statewide. In 1992, regional service centers were created that primarily focused on professional development for school districts. These service centers provided a primary program consultant

that was responsible for various regions across the state who worked in conjunction with other similar statewide networks, like education co-ops. In 1998, the focus of the regional service centers became more content driven and in alignment with funding for education academies that provide content specific professional development. Five years later, the regional service centers were legislatively removed by a lack of funding and support.

Data has been collected by the Kentucky Department of Education through the Demographic Survey of the Primary Program. Survey results indicated an increase of predominantly single-age groupings over a five-year span. Another area of concern from the survey reflects a higher number of primary students being offered an additional year of primary and where this additional year is being offered is very inconsistent statewide.

The most important factor to truly evaluate primary programs in Kentucky will always be the overall impact on student learning in relation to the implementation of the critical attributes. Teaching and learning in the primary program across the state is happening in a variety of ways and structures. However, the support that is currently being provided to schools is more content driven with further support for intervention services appropriate for students who are struggling. As schools continue to make local decisions about the structure of the primary program in Kentucky, the quality of the services provided to support the instructional core of students, teachers, and content through the critical attributes must be apparent.

### **Kentucky’s Primary Program:**

<http://www.education.ky.gov/KDE/Instructional+Resources/Elementary+School/Primary+Program/>

Joe McCowan is the manager of the Mathematics and Science Branch at the Kentucky Department of Education.

# Policy Perspective

## MULTIAGE IN THE ERA OF NCLB

Sandra J. Stone



In the age of NCLB, educators continue to support the rigidity of the graded system, which is based on a manufacturing model spurred by the Industrial Revolution. When Horace Mann introduced the graded system from Prussia in 1843, he launched a system in the United States which benefited children by providing an education for all and sought to ground democracy and equality in our nation. However, with this system also came a curriculum-centered approach, which remains with us today, and is compounded by the regulations of NCLB. Children are organized into grade levels, curriculum is sequenced by grade, children must pass the grade level tests or be retained, and endure the pressure of high-stake tests, which may limit their educational opportunities.

Multiage education is a child-centered approach, which is founded in an understanding of child development and research on how children learn, and considers the uniqueness of each learner in terms of learning rate, background, learning styles, multiple intelligences, and interests. Multiage education does not compare children. The philosophy sees each child on his own continuum of learning within a whole child context: social, emotional, cognitive, and physical. Multiage does not try to fit the child to the pre-determined curriculum, but rather chooses a broad-based curriculum to fit the needs of the child. Multiage is grounded in constructivist and social learning theory.

Elkind (1989) envisioned two approaches to education with opposing aims: 1) to facilitate the development and personal construction of each child's knowledge (multiage), and 2) to produce children who score high on tests of achievement (graded).

Ideally, because of opposing aims, multiage should exist outside the graded system or be protected as a "school within a school." To try to fit multiage philosophy within a graded system creates frustration for teachers, parents, and children. Some teachers have likened the experiences to trying to "fit a square peg into a round hole." It just does not fit.

If the fit is forced, the edges of the square are chiseled off, so it does not resemble a square anymore. If multiage education is forced into the system, oftentimes the focus then becomes curriculum-centered rather than child-centered. Learning is limited to the curriculum for the grade levels rather than designing learning for each child. Grades are given for curricular work instead of using portfolios to plan for individual progress. The focus is on teaching to tests, rather than facilitating learning for the child. Competition reduces cooperation. Standards are used as benchmarks rather than goals in the natural course of learning. In this setting, multiage classrooms become merely combination classes rather than vibrant, social learning environments with many of the benefits of a true multiage program lost.

However, multiage programs continue to beckon educators who circumvent the graded system in order to pursue multiage philosophy in its truest form — and multiage classrooms become places where children of different ages flourish in safe and challenging learning environments. The advantages of multiage education from a constructivist perspective for children include:

1. Learning as a whole person.
2. Learning is social.
3. Freedom to take risks, follow interests, and make choices.
4. Facilitation of personal construction of knowledge.
5. Honoring and valuing each person as unique.

6. Understanding child development so children are not set up for failure.
7. Learning through meaningful and relevant experiences.
8. Learning as a process and not a product.
9. Learning through play.
10. Learning as an individual

The advantages for multiage education from social learning theory for children include:

1. Learning from children who are both novices and experts.
2. Encouraging the use of more sophisticated skills in order to engage experts.
3. Mastering skills through modeling for diverse learners.
4. Internalizing new understandings through "cognitive conflict" experiences with mixed ages.
5. Developing intellectual and communication skills because of broader differences in the learning community.
6. Acquiring social skills in meaningful contexts with mixed ages.
7. Providing a natural environment for pro-social behaviors to thrive such as helping, sharing, and taking turns.
8. Encouraging cooperative learning in the absence of competition.
9. Providing contexts for the development of leadership skills for all ages.
10. Seeing greater benefits for all children in three age groupings than for two age groupings.

In the world of NCLB, learning is often diminished for children. Some children win and some children lose. Multiage education, however, opens up learning for every child, providing an enriched learning environment within a family of mixed age learners. The opportunities are greater for learning, but more importantly, children are treated with respect for their individuality. Children are not seen as products coming off the conveyor belt, stamped with a test score, but children are human beings with emotions who are cared for and nurtured through a system that understands what learning is all about.

Sandra J. Stone is Director of the National Multiage Institute and Chairman of the College of Education at Northern Arizona University.

Please see page 7 for a list of references for this Policy Perspective letter.

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## INTERNATIONAL MODEL OF MULTIAGE PROGRAMS

Multiage classrooms are popular in many countries. In 1995, more than half of the classrooms in the Netherlands, Finland, Portugal, and Western Australia had multiage groupings, and one in seven Canadian classrooms were multiage (Veenman, 1995). In 2004, the Netherlands Antilles federal government required their schools to change from a traditionally graded system to a child-centered and mixed-aged approach (Stone, 2004).

The Australian Association of Multiage Education, established in 1994, helps and leads multiage schools by providing numerous professional development activities, including newsletters, journals, workshops, and a biannual conference. In Canada, multiage groupings are common in childcare centers and preschools, and many rules regarding the implementation and management of these programs have been introduced to help other centers and schools (Bernhard et al., 2000).

Multiage education may be flourishing all over the world, but it is critical to keep in mind that this method is not deliberately used for educational purposes in all instances. In order to achieve the full benefits of multiage education, a careful examination of best practices and the research base, professional development, and perhaps some regulations are needed to help schools implement the program correctly.

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## CONCLUSIONS AND RECOMMENDATIONS

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### Conclusion

Little research exists on the outcomes and benefits of multiage education. Much of the research is quite dated, and additional research from the mid-90s provides mixed results. The wide range of ways multiage education is implemented makes it difficult for researchers to generalize the academic impact of multiage education. Thus, without overstating the benefits and effects, the

strength of multiage education is its emphasis on the learning styles and progress of each student. When implemented with fidelity and reflective of best practice, multiage classrooms can provide a learning environment where students flourish — but positive outcomes are not guaranteed in the absence of appropriate administrative and instructional support.

### Recommendations

High-quality research on the effects of multiage education is needed via a randomized control trial or a quasi-experimental study to validate the existing body of research that generally point to accelerated gains by students in language development, reading, and mathematics.

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### Conclusion

Teachers and parents often lack a full understanding of multiage education, which results in difficulties of implementing multiage classrooms. Many teachers indicate that they are not adequately trained to teach multiage groups of children, and parents tend to worry about the environment and the quality of instruction.

### Recommendations

In order to implement multiage classrooms efficiently and effectively, parent education and teacher preparation are essential. Students may not enjoy the optimal benefits from multiage classrooms if teachers cannot implement differentiated instructional strategies, environments, and assessments; and age-balanced heterogeneous classrooms cannot be easily achieved if parents do not fully understand and support the philosophies. By offering professional development workshops on multiage education and differentiated instruction for teachers, as well as providing detailed information to parents, schools will be more likely to implement the program successfully.

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### Conclusion

Currently, the non-graded multiage programs are not perfectly aligned with the graded and curriculum-centered education system in the U.S. It is difficult for administrators to implement the multiage program in traditionally organized schools and

operate two different programs in one school.

## Recommendations

It is necessary for administrators to create “space” for multiage classrooms within the school and to let multiage classrooms exist outside the graded system. Few dispute that multiage classrooms do not easily fit in the traditionally-organized school, and by forcing them into the system, usually the classrooms cannot maintain their child-centered approach (Stone, 2008). In order for multiage classrooms to be most beneficial to all students, administrators should create the classrooms as a “school within a school” (Stone, 2008).

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## Conclusion

Federal and state accountability systems, based on standards, assessment, and school performance accountability, have created a K-12 education system that emphasizes the achievement of the “bubble kids,” or students just below the passing rates or cut scores on standardized testing. This emphasis has come at the expense of students at the tail ends of the ability distribution, both the lowest achievers and high ability students. The learning and developmental needs of all students must be adequately considered and addressed. Creativity and innovation cannot be lost in the drive to have all students demonstrate a level of minimum competency.

## Recommendations

School administrators should consider multiage education as a viable “alternative” program that should be available to any student who is underserved or not succeeding in the traditional classroom. Administrators should consider multiage classrooms as a smaller learning community or a school within a school and provide these programs adequate support and leadership.

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