MULTIAGE INSTRUCTION AND INCLUSION: *A Collaborative Approach*

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This article describes a multiage classroom led by three co-teachers who facilitate the education of 42 students ages six through nine years. The classroom is located in a public school district that practices inclusion and subscribes to the principles of whole schooling. A literature review defines the concepts of co-teaching, multiage education, and inclusion and demonstrates how the co-teachers practice the principles of whole schooling. A rich description of the classroom follows so that the reader may fully understand how to implement similar teaching strategies. Implications for practice are discussed.

Introduction

Today, a central concern of United States educators is ensuring equitable access to general education for all students, including students with disabilities, students from diverse cultural backgrounds, and students who speak English as a second language. Both the No Child Left Behind (NCLB) Act of 2001 (U.S. Department of Education, 2001) and the Individuals with Disabilities Education Improvement Act (IDEA) of 2004 (U.S. Department of Education, 2004) articulate the school's responsibility to ensure that all students are able to access the core curriculum of general education and be educated in the general education environment whenever possible, with appropriate supports and services. Regardless of legislation, supporting all students' success in the general education curriculum is important to us. We are three primary school educators who teach cooperatively in an inclusive, multiage classroom and a parent who has been part of this classroom for four years.

This article describes our inclusive, multiage classroom for students ages six to nine years in a public elementary school. We hope that information chronicled here not only generates discussion about multiage instruction and cooperative teaching, but also serves as an example for educators interested in these models of instruction. First, we discuss the literature on multiage education, cooperative teaching, and inclusion. Next, we describe our multiage classroom and how we facilitate learning for 42 students in grades one, two, and three in a public elementary school. We then

discuss how our program model fits into the six principles of Whole Schooling. We close by sharing some implications for practitioners who may be interested in building similar learning environments.

Literature Review

The concepts of multiage education, co-teaching, inclusion, and whole schooling are grounded in the philosophy of progressive education. Progressive education emphasizes child-centered planning and teaching, with the goal of making democracy work through education (Morrison, 2006). The progressive movement in education was sparked by Dewey (1916), whose theory of schooling emphasized students and their interests, rather than subject matter, and viewed education as a process of living, rather than a preparation for future living. Progressive education-based practices today include inquiry-based learning, portfolio-based assessment, multiage grouping, and flexible scheduling. Here, we define multiage education, co-teaching, inclusion, and whole schooling using the philosophy of progressive education as a guide.

Multiage Education

Multiage classes are created when children of different ages and grade levels are intentionally combined in a single classroom to realize academic and social benefits. At the end of each year, the older students move on to the next grade and a new group of students enters at the lower grade. This provides the opportunity for students to spend more than one year with a teacher or team of teachers. Though multiage systems vary, many elements remain constant. Multiage classes include at least a three-year age or a two-year grade span (Pardini, 2005). Students in multiage classes remain with the same teacher or team of teachers for more than a year. Finally, the classroom is created for philosophical rather than monetary reasons (Goularte, 1995). In our classroom, first, second, and third grade students learn cooperatively with our team of three teachers.

There are numerous benefits of multiage education. One of these is the effects from peer modeling. According to Vygotsky (1978) a child's level of potential development can be enhanced by more capable peers. Modeling also benefits the older students when social behaviors are involved. Katz (1995) found that self-regulatory behavior improves when older students need to remind younger students of the classroom rules. Further, when older children 'teach' newly learned skills to younger classmates, they strengthen their own understanding of these skills (Goularte, 1995). Another benefit to students in a multiage classroom is the increased similarity of their classroom to the real world. A larger age span is more reflective of the child's society outside school. When children interact outside of schools, in families, neighborhoods, ball teams, and scout troops, they are not divided by age.

Multiage education traces its philosophical roots to the guiding principles of early childhood education, which stresses the importance of developmentally appropriate pedagogy. Emphasis is placed on the child rather than on the curriculum. It is precisely that emphasis, however, that may have caused research in multiage education to wane in recent years, especially since the implementation of NCLB

(Kappler & Rolke, 2002). In the 1990s, multiage education was hailed as a promising way to restructure schools and to boost student achievement. In the current climate of accountability, however, school districts are concerned that NCLB imposes a rigidity that curtails the use of more progressive curriculum reforms (Pardini, 2005). It is our firm belief that academic standards are here to stay. By embedding those standards into class activities and applying a planned vision of how to implement multiage groupings, standardized test scores will fall into place. Cooperative teaching helps to focus that vision.

Cooperative Teaching

Cooperative teaching, also known as co-teaching or collaborative teaching, is the process by which a general educator and a special educator teach together in an inclusive classroom (inclusion is defined in detail in the next section). Although the program described is led by three general education teachers, it is based on a cooperative teaching framework. Professionals consult and collaborate together to plan instruction and both (or all) are responsible for the instructional process. Co-teaching in American schools can be traced back to the 1960s when it was popularized as an example of progressive education. In the 1970s, co-teaching was advanced by legislated school reforms and teachers' increasing need to diversify instruction for a more diverse student population (Santamaria & Thousand, 2004). Today, cooperative teaching is designed to minimize some of the problems with pull-out programs such as students missing academic instruction, insufficient communication and coordination among professionals, and fragmentation of the curriculum. It also allows supportive services and modified teaching for students with academic difficulties who do not receive special education services. Cooperative teaching gives *all* students the assistance and expertise of at least two professionals rather than just one (Austin, 2001). Furthermore, based on interviews of co-teachers conducted over the past two decades, co-teaching helps educators meet their basic psychological needs of belonging, fun, choice, power and survival (Villa, Thousand, & Neven, 2004).

Cooperative teaching teams may encounter several problems, however, that can limit their effectiveness (McLeskey & Waldron, 2002). Lack of time to plan and implement programs, no administrative support, resistance from colleagues, concerns about grading, increased workloads, and increased responsibilities are major obstacles to successful cooperative teaching (Rice & Zigmond, 2000; Walther-Thomsa, Korinek, McLaughlin & Williams, 2000). Teachers also report that they need to work and teach together so all members of the team assume responsibility for *all* students and perform relevant and meaningful tasks that promote student learning (Weiss & Lloyd, 2003). Cooperative teaching takes *time* which is often sorely lacking in many schools. It also requires that teachers deal with historical, logistical, and territorial building issues. A discussion of how these concerns can be addressed is included in the program description section.

Inclusion

Inclusion is a term which expresses commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend if he or she did not have a disability. Support services are brought to the child, for example, through cooperative teaching, rather than move the child to another environment such as a resource room. Proponents of inclusion favor the diversity that is created in inclusive settings as well as incidental learning about acceptance, belonging, and community.

In order to be successful, however, schools must allow for flexible learning environments, with flexible curricula and instruction. Under ideal conditions, all students work toward the same overall educational outcomes. What differs is the level at which these outcomes are achieved, the additional support that is needed by some students and the degree of emphasis placed on various outcomes. A restructured system that merges special and general education must also employ practices that focus on high expectations for all and rejects the prescriptive teaching, remedial approach that leads to lower achievement (Guess & Thompson, 1989, Heshusius, 1988).

The rationale for inclusion rests on research findings; research, however, offers a variety of results and perspectives. Many proponents claim that including students with disabilities in general education settings is inherently right. Proponents also suggest that inclusion results in positive academic outcomes (Dore, Dion, Wagner, & Brunet, 2002; McDonell, Johnson, Polychronis, & Risen, 2002) as well as positive social outcomes for students with disabilities (Cawley et al., 2002; Rea, McLaughlin, & Walter-Thomas, 2002; Waldron & McLeskey, 1998). Other studies, however, indicate that some students with disabilities do not receive the instructional accommodations they need to benefit from inclusion (Baker & Zigmond, 1995; Lloyd, Wilton, & Twonsend, 2000). Research has also demonstrated that students without disabilities are not harmed academically by inclusive education (Cawley et.al., 2002; McDonnell, 2002; Wallace et al., 2002) and, furthermore, may benefit socially by, by reducing fear of human differences, and increasing understanding and tolerance for others (Hunt, 2000; Krajewski & Hyde, 2000).

Educators, however, have mixed reactions to inclusion. Their attitudes are related to their efficacy in implementing inclusion, which in turn, depends on administrative support, resources, time, and training they receive to implement inclusive education. The attitudes and reactions of families of children with and without disabilities are complex, multidimensional, and affected by many variables. When viewed through a progressivist lens, however, the positive benefits include students who are able to apply critical thinking strategies, students who learn to be self-directed learners, and students who relish opportunities to participate cooperatively with others. Our program description expands on this and includes our stakeholders' (students, families, teachers, and community members) reactions to the inclusive program within our district as well as in our classroom.

Program Description

Our school district has a strong site-based, shared governance management philosophy. The site council for our school is comprised of parents and community members who share responsibility for our school's financial and administrative decisions. Current demographics include 4500 students, 19 administrators, 450 teachers, and 250 support staff in three elementary schools (with a fourth under construction), two charter elementary schools, two middle schools and one high school. The two charter schools provide parents with additional education choices. The first charter school features multiage, team-taught classrooms that incorporate an integrated curriculum emphasizing science, math, and foreign language at the elementary level. The second charter school has adopted an elementary through middle school curriculum based on the core knowledge/cultural literacy concepts of E. D. Hirsch and the Core Knowledge Foundation. The second charter school emphasizes direct teacher instruction as opposed to activity-driven instruction. Parents petitioned for and facilitated the development of both schools. The classroom featured here is housed in a traditional neighborhood elementary school.

The district's site based management system may have enabled the way for the administrative and parental support of our multiage classroom. Two of us began co-teaching together several years ago. At the time one teacher worked as a special educator and supported students with and without special education needs in the straight second grade classroom. Because we recognized and enjoyed each other's teaching strengths, we received permission to co-teach a multiage classroom of 30 first and second grade students with and without disabilities. Our underlying philosophy regarding inclusion was that everyone receives what he or she needs, rather than all students receive the same instruction and instructional support. We were both recognized as classroom teachers, and in the following years, both of us taught as general educators. We never lost, however, the belief that all children, with and without disabilities, are full class members who receive education in our room, by us. Two years ago, we requested and added a third teacher and third grade students to our classroom, in response to the broad range of opportunities for collaborative peer learning that could be developed in a first through third grade classroom. This section describes our classroom and the mechanics of "how we do what we do".

Flexible Grouping

We rely on flexible grouping strategies to promote collaboration among students and adults in our classroom. While students participate in collaborative group or individual work at centers, we are able to monitor small group interactions and provide specific skill instruction. The "classroom" actually consists of two large rooms, each with a bathroom and a sink, and a half size middle room that is used for small group and office space. Table 1 provides a breakdown of fluid, flexible grouping configurations that are typically used in our classroom.

Table 1: Flexible Grouping for Instruction

Types of Groupings	Primary Uses
Whole class meetings	Community-building, planning, introducing new concepts or skills, reading/writing/thinking strategies, closure
Teacher-led small groups	Common need, guided practice, task-focused help, sharing reading and writing assessment
Student-led small groups	Supported practice, shared tasks, collaborative responses, common interest, sharing reading and writing
Partners (dyads)	Supported practice, mentoring, tutoring shared tasks

It is important to note that groups are never static! Sometimes we rely on ability grouping, perhaps for math or reading instruction, sometimes we teach to grade levels based on district standards. For example, the science curriculum is separate for our third graders to meet district standards. While whole-class meetings, teacher-led small-group instruction, and individual instruction are necessary; collaborative, student-led small groups are also common in our classroom. We use common interest groups, shared task groups, and dyads to take advantage of our students' broad range of cognitive abilities. At times, however, students self-select with whom they will work and in those cases, groups can become more homogenous in nature. Scheduling is crucial to success. We have developed a system where we take turns developing the schedule for the week. While each teacher is responsible for individual lesson planning and grading in the areas each will teach that week, the "lead scheduler" is responsible for deciding the necessary time-blocks for that week's lessons. Care must be taken to ensure that each takes turns teaching all subjects throughout the school year. This way, students don't identify a certain teacher as the "math teacher" or the "handwriting teacher". We do, however, follow a routine with predictable patterns. Each day begins with a whole-class meeting where students and teachers go over the plan for the day. Table 2 provides a sample daily schedule. Many of our students, including those identified with autism spectrum disorders, learning, or behavior disorders, crave and depend on a predictable classroom routine. Rarely are there behavior "problems" in our class, however when they occur, the luxury of having three teachers available allows us to focus immediately on individual needs to prevent and alleviate crisis.

Table 2: Sample Daily Schedule

Time	Subject	Who
7:45	Math Facts	All
8:00 a.m.	Social Studies Music	First and Second graders Third graders
8:30	Music Social Studies	First and Second graders Third graders
9:00	Schedule Partner Reading	All
9:45	Brain Games Reading Groups	All, by ability
10:35	Spotlight-Karley Lunch/Recess	All
12:10	Bulletin Board Activities Bulletin Board Activities Math Groups	First and Second Grade Third Grade All, by ability
1:15	Recess Science Groups Science Groups	All First and Second grade Third Grade
2:25	Dismissal	All

Move, Move, Move

Although we rely on a predictable routine, we are always moving. In fact, students in our classroom do not have their own desks; we tell them, rather that they "rent" space. Part of our movement comes from our homogenous grouping; in order to group and re-group throughout the day, students must physically move from one seating arrangement to another. We also encourage learning to occur in our loft space, or one of our sofas or rugs. Students take turns spending the in these shared spaces, according to the daily schedule. We find that our students enjoy moving and become more focused on the task when we incorporate multi-model learning into our lesson design. Without entering a lengthy summary of brain-based learning (Jensen 1998, 2000; Caine & Caine, 1991, 1997, 1998; Sousa, 1998, 2003; Sylwester, 1995, 2003; Wolfe & Brandt 1998) or the cautions that go with over interpretation, we have found that movement is a central and critical part of learning. Movement is facilitated through the following.

- Opportunities to complete work while lying on the floor or standing at the desk.
- The Alert Program for Self-Regulation (Williams & Shellenberger, 1996), which was introduced to our classroom by district occupational therapists, promotes awareness of how individuals regulate their arousal states and encourages the use of sensory-motor strategies.

- Prior to long instructional periods (e.g., 45 minutes or more) we practice brain games. Brain games stem from research (Sousa, 1995, 2001) that shows by engaging both hemispheres of the brain with physical activities students are more receptive to instruction. We put on music and model lateral movement and coordination of arms and legs. We work with students to hear the beat and to move accordingly.
- A small snack is offered twice daily and a larger snack, with milk, is offered once daily.
- Liberal access to the water fountain and bathroom. If it appears that a student is using drinks or bathroom breaks as an avoidance technique, a chat with the teacher is in order.
- We use the Ready, Set, Release (Klein & Allen, 2003) compact disc to teach specific, calming exercises to promote relaxation techniques. The exercises range in length from two to 20 minutes. We own two copies of the compact disc so that all in both rooms may relax at the same time.

We do not take a "sit quietly" approach to learning. However, movement does not mean noise or chaos. In fact, "noisy movement" is very disconcerting and tends to negate the positive elements of the intended movement. Our classroom is quiet and organized with calculated movement interwoven in the day. Although we do incorporate these types of multi-modality strategies into our lesson plans, we also concentrate on a standard curriculum that provides the flexibility and the opportunity to be individually organized and incorporate a number of differentiated activities and assignments.

Team, Team, Team

The reason we are able to differentiate to such a large range of students and abilities is because we team. For us, a team mentality means that we can meet the needs of all learners without having to be everything to everybody. In other words, one teacher has the time available to observe students while the other teachers are instructing, we all have opportunities to work with smaller groups of students, and we are each enriched from learning great deal from two fellow teachers. We have unique opportunities to compensate for our individual interests in ways that allow us each to function at our very best. In order to effectively team, we have to figure out what works for us individually and as a group. The mutual respect we share helps us find and develop individual interests and teaching strengths.

Having a shared vision for the classroom and a mutual respect for each other is an essential part of what we do. Our situation simply would not work if partnering were left to chance or if pairing was dictated by administrative constraints. Careful planning is essential, even more so than in a classroom left to one individual, since team teaching depends on the compatibility and mutual respect of those involved. With a large group of children like ours it takes a sense of true team-work to enable children in a large group to live and learn from everyone. Because the three of us share the same vision for our classroom, it is easy for our students to share and understand that vision too.

Less Stress, More Humor

When we entered this collaboration, we said that we did not want it to be *more* work for us. From our experience, most educators work too hard already and we had heard "horror stories" about teaming situations where people spent too much time in planning situations.
With this in mind and with our shared educational philosophy, we strive for ways to make this job less stressful. This involves some team planning at crucial times, but it also involves mutual respect and trust so that we can "let go" of certain aspects of the day/classroom and trust our partners to bring their special strengths and wisdom to their responsibilities. We divide tasks, share the workload of students who require more teacher time than typical learners, we take turns attending I.E.P. conferences, we share parent communication responsibilities, ect. Some specific examples are:

- one teacher coordinates volunteers for the entire classroom
- one teacher handles our classroom webpage and weekly newsletter
- one teacher coordinates I.E.P. services with a special educator for the entire classroom
- one teacher handles Scholastic book orders for the entire classroom

During traditional times of high stress for teachers (e.g., report cards, conferences, high stakes testing weeks), we are especially careful to share and help each other so that we do not get stressed. The ultimate goal of course, is to keep our classroom from being a stressful place. We want our environment to be warm, happy, and conducive to learning.

We do plan ahead with our groupings, so that when it comes to marking report cards or participating in I.E.P. conferences, we can be reporting on students with whom we are currently working. Because we consider all of the students to be our students, we share responsibility for attending I.E.P conferences so that we have all attended at least one conference for each student over the course of three years. Obviously, we do informal consulting with each other during our mutual preparation periods. We believe that mutual respect, trust, humor, and friendship among us as teachers is a model for how we would like our students to interact with each other. It makes our classroom a fun place to be; we certainly enjoy coming to school every day!

Assessment

In our classroom, we include both traditional assessment methods (i.e., curriculum-based tests and standardized tests) and authentic assessment methods. Authentic assessment is a form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful applications of essential knowledge and skills. For example, in our class, we may ask a student to demonstrate proficiency by doing a task (e.g., giving an oral presentation, conducting an experiment, writing an essay or extended journal response), rather than taking a multiple choice test on the topic

surrounding the task. However, we first identify the district standards set for that particular task, develop an activity that students would perform to show that they have met that standard, identify the criteria that indicate that they met that standard, and develop a rubric for assessment (Mueller, 2006). The rubrics we use typically have two or more levels of performance indicators that sufficiently discriminate among student performance for that criterion.

We use portfolios to systematically gather student work over time to display authentic assessment artifacts. Students have input over what goes into their portfolios and students meet with a teacher and their parents twice a year; once to develop goals and once to discuss the portfolio. Portfolios are sent home with specific tasks (on viewing and goal setting) for families to complete before the portfolio meeting. Students' portfolios are on display for parents twice a semester and parents are encouraged at any time to review the portfolio individually or with their child. We also use the portfolio process to encourage students to self-reflect on their learning and achievement over time and to facilitate communication among families and us. Feedback from families has been positive; families indicate that it is positive to view progress over time. Families also help us to continually refine the portfolio process. Portfolios provide opportunities to assess not just end products but *how* students arrived at their end products. When portfolios play this role of showing students' processes for learning, they can be used as a diagnostic tool for the class as a whole as well as for individual students. Portfolios, therefore, also help us make curricular decisions. Our instructional programs and strategies can be validated, improved, or even extended based on information we gain from looking critically at our classroom portfolios. Together, the three of us can become aware of student learning difficulties and uncover problems needing attention in many areas, such as skill development, written expression, collaboration with others, and growth in ability level.

Whole Schooling

This section describes how our classroom fits with the principles of Whole Schooling. The "big idea" behind whole schooling is that schools should help children develop skills that lead to becoming effective citizens for democracy (Peterson & Tamor, 2003). Progressivist educators who value the practice of whole schooling emphasize child-centered planning and teaching in order to make democracy work through education. Whole schooling is supported by the following six principles: empower citizens for democracy; include all in learning together; teach all using authentic, multi-level teaching; build a caring community; support learning; and partner with parents and the community (Peterson, 2004). An example of how we meet the first principle, empower citizens in a democracy, is demonstrated through our students' daily interactions. In our classroom students have multiple opportunities to make choices with the guidance from three adults. We explicitly teach how to problem-solve and use authority wisely. We model democracy by engaging students, families and each other in making collaborative decisions.

The second principle, include all in learning together, is one of our classroom cornerstones. Students with disabilities have participated in general education courses for the majority, if not all of their school day since 1985 in our district. Students with disabilities are actively involved in sports, clubs, school, and community activities. In our classroom, students with wide ranges of chronological ages, academic abilities and interests are heterogeneously grouped. A sense of community and social safety provides an emotional foundation that stimulates critical thinking and allows students to take academic risks. For such a program to work, the third principle, provide authentic, multi-level instruction, must be implemented. We recognize that instruction cannot be monolithic in a classroom where diversity is recognized. Because we expect students to function on a wide spectrum of social and academic abilities, we design instruction to engage students in active learning using meaningful, real-world activities, providing scaffolds and adaptations.

Learning occurs more readily in environments that are free from tension or humiliation; where students feel like they belong in the classroom group, are cared for by the teacher, and accepted by peers (Sergiovanni, 1994; Peterson & Hitte, 2002; Thousand, Villa and Nevin, 1994). Furthermore, behavioral challenges occur less frequently in environments that support respectful relationships among students and teachers. Therefore, the forth principle, building community, is critical. We focus on building structures within the classroom among children so that they support and help each other. Some of our students have serious life difficulties but as members of our community they know that they matter.

The fifth principle, supporting learning is seen by the way we use our specialized support services in the classroom and in the way we provide enrichment services to our students. Our school's Speech and Language clinician has her office in our middle room and provides individualized and small group services directly in our classrooms. Although one of us holds teaching licenses in both special and general education students receive special education services, in our classroom from other licensed special educators. Positive behavioral support strategies are invaluable in helping many of our students develop alternative means for having their needs met (Lantieri & Patti, 1996; Sugai, 2002) and for facilitating learning for all our children. Enrichment programs including Continental Math League (see www.continentalmathleague.hostrack.com) Word Masters Challenge (see www.wordmasterschallenge.com) and Junior Great Books (see www.greatbooks.org) are available to our students. In addition, our school guidance counselor teams with our physical education teacher to lead discussion on topics such as personal safety, bullying, and social skills. Language enrichment classes in Spanish and Japanese are offered to interested students after school (for a small fee or waiver) via a contracted enrichment program.

Finally, we recognize the importance of the sixth principle, partner with families and the community. We strive to build genuine collaboration with our families, and with the other teachers in our building. Parents are encouraged to visit at any time and parents are recognized as authentic partners at many different levels not only in our

classroom, but also in our district. Parents are not only a visible part of our classroom, helping and supporting student activities, but are also a crucial link to our district's management. Parents make policy decisions that shape our school's operations and future via the Site Council, which makes budget decisions for our school. Families and community members share their educational concerns with the Site Council via the Parent Advisory Committee, which also helps to make educational decisions. In order to fully represent our school community, committee members are included from each school neighborhood.

Practical Implications

The success of collaboratively teaching 42 students grades one through three in an inclusive setting depends on several logistical factors. First, educators should chose the multi-age instructional model rather than be directed to use it. We were not required to co-teach, nor were we required to become multiage instructors. We found a teaching method and arena that matched our values and abilities. We also use each others' strengths. For example, one of us is visually creative and developing flexible seating configurations comes easily. Second, educators need sufficient time for planning and for responsibility division. However, care must be taken so that too much time is not spent in planning. In order to streamline planning time, educators must recognize and rely on each others' strengths in the classroom. Having the ability to "give things up" to another professional is crucial. Third, there must be administrative and parental support for this type of model. At the end of each school year, our building principal leads a discussion for parents on the multiage program at our school. Parents can choose the multiage classroom and parents can "opt out" if they wish. Community support for this model, however, has been strong. Our building has another multiage classroom of grades one through three with three teachers because we have a large number of families who are interested in this type of learning environment. Our students come from a wide range of socioeconomic backgrounds and life experiences. This classroom is a place they all can call home.

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