

**TEACHERS' VIEWS**  
**ABOUT**  
**COMBINATION CLASSES**

by

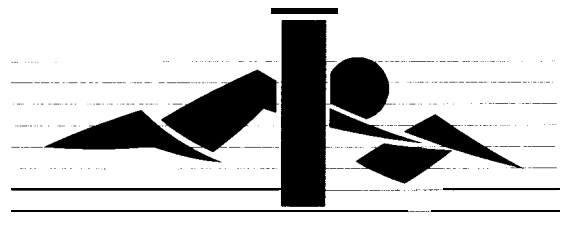
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*CALIFORNIA EDUCATIONAL  
RESEARCH COOPERATIVE*

UNIVERSITY OF CALIFORNIA, RIVERSIDE

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## **Introduction**

Increased enrollments, financial constraints, and year-round schooling programs have recently led many school districts to increase the number of combination classes<sup>2</sup> in their elementary schools. The escalating use of this format, where one teacher simultaneously teaches students from two adjacent grade levels for the entire day, has led many parents, teachers, and administrators to question this practice. Some educators, for example, assert that combination classes are just as effective as single-grade classes. Other educators argue that combination classes create difficult teaching circumstances and lower student achievement. Still others say combination classes can be managed in traditional schools but that multi-track, year-round schools present problems due to constraints in strategically assigning teachers and students to these classes.

Unfortunately, research on combination classes has not been extensive. Quasi-experimental studies comparing cognitive and affective outcomes in combination classes to those in single-grade classes have generally found no differences; however, as several scholars have noted, these inquiries are difficult to interpret because of methodological problems such as nonrandom assignment of teachers and students, novelty and Hawthorne effects, and the apparent common practice of assigning higher achievers and independent students to combination classes (Mason, Burns, Colwell, & Armesto, in progress; Miller, 1989; Veenman, Lem, & Winkelmolen, 1985). Since studies that document teachers' and principals' craft knowledge<sup>3</sup> about combination classes or that link specific teaching strategies to student outcomes are also lacking, practitioners have little sound research evidence upon which to base their practical decisions. Knowledge about the effects of combination classes and how students are assigned,

grouped, and taught in this format would therefore provide educators important guidance. The following study, part of a larger study aimed at investigating whether combination classes are as effective as single-grade classes (Mason & Wilson, 1991), was initiated by educators to determine whether organizational and teaching strategies could be identified to improve student outcomes in these classes.

### *Background of the Study*

Combination classes have been in existence in the U.S. since students of all ages were under the tutelage of a single teacher in the one-room school house. Although graded schools were formed when the industrial revolution led to a large increase in students, and there were still over 200,000 one-room schools in 1918, by 1980 only about 1,000 one-room schools remained (Muse, Smith, & Barker, 1987). Multigrade classrooms with two or more grades, however, have continued to be commonplace. For example, Rule (1983) found that 17 % of the students in a southwestern suburban district were enrolled in combination classes. Miller (1989) and Bums, Mason, and DeMiranda (1993) found that they were frequently used in rural and suburban districts, respectively. Furthermore, scholars have shown them to be even more widespread in the Netherlands, England, and Finland (HMI, 1978; Pietila, 1978; Veenman, Voeten, & Lem, 1987).

While combination classes are commonplace in many elementary schools, their frequency is likely to grow as more districts adopt year-round schooling. Year-round schools, which typically include multi-track organization, lead to an increase in the number of combination classes due to more frequent imbalances in the numbers of students available to form grade-level

classrooms within a track. Indeed, some year-round schools include a large majority of combination classes.

Research, however, provides few insights for practitioners faced with decisions about combination classes. Experimental investigations comparing combination classes to single-grade classes are seriously flawed, case studies describing combination classes are nonexistent, observational research documenting how combination classes differ from single-grade classes is scanty, and interview and questionnaire surveys examining teachers' and principals' views about combination classes provide few details.

Although the 18 quasi-experimental studies reported in the literature have generally found no differences between combination and single-grade classes, these findings are highly questionable. As Mason et al. (in progress) point out, not a single study included random assignment of students; few researchers have reported data demonstrating prestudy equivalence of schools, teachers, or students; and it is likely that several studies included systematic student differences favoring combination classes due to the common practice of assigning independent and higher achieving students to these classes (also see Miller's [1989] review and Veenman et al., 1985).

Some insight into teaching process differences between combination classes and single-grade classes has been gained, however, from two recent observational studies. Veenman and his colleagues (1985), for example, found that students worked individually longer in multigrade classes than in single-grade classes and that single-grade teachers assisted individuals in language arts almost three times more than their counterparts did in multigrade classes. They also found no differences in time-on-task between the two formats. In a second study, Veenman et al. (1987) found no significant differences in how much time multigrade and single-grade classes

spent in the content areas or in the instructional behavior of their teachers. Time-on-task in this study, however, was more varied and significantly lower in multigrade classes than in single-grade classes, and these findings did not vary by ability level.

Several interview and questionnaire studies have documented educators' views about combination classes, though the reporting of these results lack depth and specifics about research methods (Brown & Martin, 1989; Pratt & Treacy, 1986; Veenman et al, 1985, 1987). Veenman and his colleagues (1985, 1987) found that teachers characterized multigrade teaching as extremely difficult (needing more planning and more effort on classroom management), less satisfying, and in need of individualized materials. Although teachers said students in combination classes increased their social interaction, engaged in more peer tutoring, and learned to concentrate and work independently, they also reported that students received insufficient oral instruction, less individualized attention, and more interruptions.

Pratt and Treacy (1986), in their study of 35 teachers and principals from metropolitan and rural areas in Australia, presented results that were nearly identical to those of Veenman. Similarly, Brown and Martin's (1989) survey of elementary educators experienced at both multigrade and single-grade teaching found 79 % preferring to teach single-grade classes and only one educator (3%) preferring multigrade classes. These authors reported that "almost all respondents stated that increased preparation time was required for multigrade classes, and there was less time in class for discussing topics compared to a single class" (p. 13). Although two teachers explained why multigrade classes were better than single-grade classes, 74% said significantly more planning and effort were required in multigrade classes, and no respondent reported less work.

Given the widespread use of combination classes, it is surprising that such a dearth of research exists. Sound experimental research is needed to investigate questions related to their affect on student outcomes. Case study and observational research are needed to examine how curriculum, instruction, and other important dimensions differ in combination classes. And, in-depth interviews and questionnaires should more carefully document teachers' strategies for dealing with combination classes.

### *Questions of the Study*

This study explored how combination class teachers approach such tasks as grouping students, developing curriculum, and delivering instruction. Furthermore, we explored how students and teachers are assigned to combination classes and how teachers feel about teaching these classes. These questions were initiated by administrators and teachers interested in whether combination classes were as effective as single-grade classes and whether strategic approaches existed for assigning teachers and students, delivering curriculum, and instructing two grades.

For example, after a child is enrolled into a grade slated for a combination class, a variety of approaches may be used for the assignment of both students and teachers. Students may be assigned by random selection, ability, behavior, or special needs (e.g., bilingual, gifted). Teachers might be assigned on the basis of such criteria as experience, expertise, teacher preference, or district policy (e.g., rotation). Practitioners were also interested in how teachers organized their classes after they received students. That is, they wondered how teachers strategically dealt with two curricula. Since our review of the literature provided little evidence

about these and other combination class questions, we decided to begin developing an empirical base about this increasingly widespread format.

Specifically, we focused on answering the following three questions:

1. How are combination classes initially organized? What strategies are used to assign students and teachers to combination classes?
2. How do teachers teach combination classes? Once students have been assigned, how do teachers strategically group students and deliver curriculum?
3. How do teachers feel about teaching combination classes? How many teachers prefer these classes? What concerns or positive comments do they express? And what do teachers see as their advantages and disadvantages?

## **Method**

### *Sample*

Thirty-five combination class teachers were randomly selected from a pool of 60 volunteers supplied by the superintendents of three suburban districts in southern California. The teachers taught in 16 schools within the three culturally diverse districts (9 from district A, 10 from district B, and 16 from district C). Of the 35 teachers, 30 were female, 30 taught in multi-track year-round schools, and 5 taught in traditional schools. The sample included 3 grades 1-2 teachers, 8 grades 2-3 teachers, 9 grades 3-4 teachers, 6 grades 4-5 teachers, and 9 grades 5-6 teachers. The sample ranged from 2 weeks to 34 years in teaching experience, from 2 weeks to 12 years in teaching at their current grade, and from 2 weeks to 16 years of experience teaching combination classes.

The 35 teachers were phoned to schedule an interview and all but two agreed to participate; these two teachers were replaced from the pool through random selection. Six novice primary teachers, 6 novice intermediate teachers, 7 experienced primary teachers, and 16 experienced intermediate teachers comprised the final sample.

### *Procedure*

The third author conducted the interviews during each teacher's planning period or after school. A schedule of 30 questions was used (see Appendix 1). The interview schedule, developed collaboratively by the authors and a committee of educators from the participating districts, was piloted with two teachers and revised based on their suggestions.

Interviews were begun by reviewing the purposes of the study and noting that we had no preconceived biases for or against combination classes. We explained that our main purpose was to understand how teachers make combination classes work, that responses would remain confidential, and that our intent was to focus on overall findings rather than particular comments. The interviews, which were audiotaped, varied from 30' minutes to one hour. To avoid interview bias, focused probes were avoided with three exceptions: (1) highly ambiguous or tangential answers, (2) a question pertaining to the essential elements of a good mathematics program, and (3) a question pertaining to the advantages and disadvantages of combination classes.

Tapes were transcribed and initially reviewed to identify response frequencies. Each interview response was then categorized using key words or phrases that summarized the essence of the responses. A second analysis was then conducted to review categories and, in several

cases, to merge similar categories. An illustration of how response categories and frequencies were established may be found in Appendix 2.

Because most interview questions were open-ended and many teachers provided more than one codable response to a question, the total number of responses often exceeded the total number of teachers. In all cases, data were checked to make sure no teacher was providing an inordinate number of responses to a particular question. Moreover, no teacher response was counted more than once for a particular response category, and consequently, response category frequencies reflect number of teachers and can be interpreted as such. However, it is not legitimate to combine frequencies across categories.

## **Results**

Results of the study are presented in three sections: (1) organizing for combination classes; (2) teaching combination classes; and (3) teachers' feelings about combination classes.

### *Organizing for Combination Classes*

*Student assignment.* Table 1 reports teachers' responses to two questions about student assignment to combination classes: what strategies principals use to assign students and what strategies principals should use. Considering first the strategies teachers said principals use, 25 of the 35 teachers, 71% of the sample, responded that little flexibility existed in assigning students to combination classes because of over or under enrollment at certain grade levels, imbalanced tracks, or small schools. These teachers remarked, "there is no organization to it," that assignment operates on a "first-come, first-served" basis according to a particular track, and

that it merely “depends on how many students there are” in a grade. As one teacher described student assignment, “it’s just by the numbers”:

*When we had a traditional schedule, I think the policy in this district was that the children who showed they could work well independently were the ones who were assigned to combination classes. Now that we're year-round and each grade has maybe one or one-and-a-half classes, it's not who can work independently, it's just the numbers. You end up with a lot of kids who don't work well together, and you just have to deal with it.*

Given that 30 of the 35 teachers in this sample taught in year-round schools, this finding is not surprising. Of the 25 teachers who reported little flexibility, 24 were from year-round schools. This finding is supported by a recent interview study of principals where it was found that classes in year-round multi-track schools are not formed purposively because of the few students available at each grade level within a track (Burns et al., 1993).

Besides this “de facto” assignment, teachers also mentioned a number of other strategies principals use to place students, the majority focusing on student ability, independence, and classroom behavior. The relatively large number of comments coded for this question reflect the fact that principals often use multiple strategies simultaneously (e.g., one class is determined by the number of students at two grade levels while another results from the formation of a bilingual or gifted program).

Turning to teachers’ views on what strategies principals should use to form combination classes, 29 of the 35 teachers mentioned that at least one of three student characteristics—ability, independence, or behavior—should be the basis for forming combination classes (data not shown). Sixty-three percent mentioned student ability, 40% mentioned independence, and 11% mentioned behavior. Clearly, a large majority of teachers indicated that combination classes should be formed in such a way as to create favorable classroom student compositions:

*I think you have to have kids that are independent workers that would be able to do something while you're working with the other grade level.*

*. . . what we generally tried to do was to put students who were low fifth grade in with probably your upper fourth grade so that they were a more homogeneous grouping even though they were two grade levels.*

**Teacher assignment.** Table 2 summarizes the strategies that teachers said principals use for assigning teachers to combination classes. Thirty-two teachers (91%) indicated that assignment was often fortuitous, based on who happened to be on a track at a particular grade level when a combination class was needed (21 responses) or on rotation among teachers from year to year (11 responses). Most of these teachers' comments indicated that, in comparison to traditional calendar settings, year-round schools with multiple tracks severely limited maneuvering of teacher assignment:

*I think you just get assigned. You don't have a whole lot of choice. It depends on what track you 're on and where they need you.*

*At this school [a year-round school] we're just told that that's what we're going to be teaching. There isn't any choice because there are so many combinations. It just wouldn't be possible to give people choices. Although if somebody wanted to do it and was eager, I think they would have the opportunity to have a combination. When we were a traditional school, it was a rotated responsibility, but we just can't do that now. We have very few straight grades any more.*

Eighteen teachers (51%) indicated that combination class assignment was often linked to seniority. Nine of these 18 said their less experienced peers ("low man on the totem pole") were more likely to be assigned, while 9 others said experienced teachers were usually assigned due to district policy or principal preference (e.g., 7 teachers from one district said first-year teachers were not allowed to teach combination classes due to district policy). Finally, 5 and 3 teachers, respectively, said that volunteers and special program classes (e.g., bilingual or gifted) often determined who taught combination classes.

## *Teaching Combination Classes*

**Grouping approach.** *The* 35 teachers reported using three broad grouping approaches to organize students for instruction in combination classes: two **groups** for all subjects (4 teachers), **whole-class** for all subjects (7 teachers), and a mixed approach whereby teachers used two groups for some subjects and a whole-class approach for others (24 teachers). These three approaches are illustrated below.

Two-Group Approach: *I have them by grade level. They are very high first graders and very low second graders, though. There are two distinct classes everyday in everything.*

Whole-class Approach: *Right now I use whole language, . . .everything through a basic theme. Then we branch out from there. I have a theme for the year and nine different topics. Everything we do is related to that topic.*

Mixed Approach: *I've used a lot of grouping strategies, especially when I had a I-2 combination because of the big difference in abilities. First graders weren 't even reading yet. There 's a big difference in those grades, and so I taught each grade level separately from each other in my language arts and in my math. In social studies and science I grouped them together by formulating my own units of study, and I tried to make sure that I was meeting all their needs as effectively as possible through large-group instruction.*

Table 3 presents the number of teachers reporting each type of grouping approach by teaching experience and grade level. Because of the relatively small number of teachers using a two-group and whole-class approach, these data are difficult to interpret. It appears, however, that the two-group approach was used more frequently by less experienced teachers (4 of the 12 novice teachers or 33 %) than experienced teachers (3 of the 23 experienced teachers or 13 %). All four teachers using whole-class approaches exclusively were experienced teachers who taught at the intermediate level. The mixed approach was just as likely to be used by novice as

experienced teachers, but this approach appeared to be favored more by primary (11 of 13 or 85 %) than by intermediate teachers (13 of 23 or 59 %).

Since mixed-approach teachers used both two-group and whole-class grouping arrangements, we were interested in how grouping approach varied by subject matter. Unfortunately, teachers were not asked about specific subject matters outside of mathematics. Many teachers, however, volunteered such information during the interviews, and we were able to ascertain grouping arrangements from teachers' comments for the majority of the 24 mixed-approach teachers for reading/language arts, mathematics, science, and social studies. We found 79 % of these teachers (15 of the 19 who commented) used two groups for reading/language arts and 77% (17 of 22) used two groups for mathematics. In contrast, we found that 88% of the mixed teachers who commented (14 of 16) used a whole-class approach for social studies (88 %), while 93 % (13 of 14) used a whole-class approach for science.

Curriculum strategies. Teachers were asked what curriculum strategies were effective for teaching combination classes. Their responses are presented in Table 4, categorized into three broad categories and rank ordered according to number of comments. The three broad categories are student organization (organizing students for the delivery of instruction), curriculum approach (planning for or use of particular curriculum methods or priorities), and instructional delivery (implementing the curriculum through instructional strategies). To provide a flavor of teachers' remarks about teaching combination classes we have intentionally left the responses disaggregated within categories.

Teachers' comments most frequently focused on student organization (46 comments), with the majority relating to using two-group or whole-class strategies. Less frequently mentioned were curriculum and instructional delivery strategies (31 and 17 comments,

respectively). It appears that teachers have more concern about or attach more significance to grouping students for combination classes than curriculum approaches and instruction concerns.

We also examined the 93 curriculum strategy comments by grouping approaches (data not shown). Of the 7 teachers who used a two-group approach, 5 said they delivered curriculum to students via grade-level grouping, providing direct instruction to one grade while the other completed independent seatwork. Two teachers who used two groups, however, said they ignored grade levels, grouping students instead by skills or ability after diagnostic testing. Whole-class teachers emphasized using whole language or thematic curriculum approaches in their teaching. These teachers said they tried to “find common threads” in their textbooks, “correlate district objectives” from each grade level, or teach basic concepts to both grades and then go “m-depth” with their upper-grade students. Mixed teachers tended to divide their comments between whole-class strategies (e.g., each grade-level group works on the same thing even if they’re in two different books, thematic approaches, integrated curriculum) and two-group strategies (e.g., providing direct instruction to one group and rotating to the other, designing separate lesson plans, using an aide with the second group).

### *Teachers’ Feelings about Combination Classes*

Teachers were asked two separate questions about their attitudes toward combination classes, and as it turned out, they gave somewhat different responses to the two questions. Responses to the first question, “Do you prefer to teach combination classes?” were coded Yes, No, or Indifferent/It Depends. Responses to the second question, “What is your general feeling about combination classes?” were coded as Positive, Negative, or Indifferent/It Depends. Tables 5 and 6 present results for the two questions by experience and grade level.

Considering preferences, 27 of the 35 teachers (77%) stated that they preferred not to teach combination classes, and another 3 teachers (9 %) were indifferent or said, "It depends." Only 5 teachers (14%) expressed a preference for combination classes, four of whom were experienced. Of the 5 teachers who expressed a preference for combination classes, 3 were teachers who used a mixed approach and 2 were two-group teachers (data not shown). None of the whole-class teachers expressed a preference for combination classes, though each was experienced and had taught combinations on several occasions previously. No differences in preference were found between novice and experienced teachers and between primary and intermediate teachers.

The majority of teachers consistently spoke of the extra work combination classes required, stating that combination classes were "twice the work and planning," "stressful," and problematic because of the need to deal with two curricula. Comments such as "it's very hard," "it's overwhelming," "I don't think we should teach two different curriculums," and "you're busy every minute" were commonplace.

Still, 5 teachers did say they preferred combination classes. Our analysis of their interviews found that 4 taught in favorable situations that likely contributed to their preferences. For example, one teacher taught a primary special education class with only five students and the assistance of an aide, while another taught a grades 5-6 "GATE cluster" class with 14 gifted students. Three of these teachers also clearly expressed that they had considerable "leeway" in designing an integrated curriculum, a freedom that many teachers said was desirable but problematic due to administrative pressure to cover two textbooks or curricula.

It is clear from the "preference" question that only a few teachers, those with favorable teaching situations, preferred to teach combination classes; the large majority of teachers in this

sample did not prefer such classes. Even among teachers who preferred not to teach such classes, however, there was some recognition that contextual variables may make such classes more palatable. We draw this conclusion from the results of the “general feeling” question (see Table 6), the second attitudinal question we asked teachers.

Turning to the “general feeling” question, 18 teachers (51%) expressed negative feelings toward combination classes, 12 teachers (34%) were indifferent or said, “it depends,” and 5 teachers (14%) expressed positive feelings. Responses to this question indicated that several teachers were more willing or able to simply cite their preferences for single-grade classes than they were to speak against or articulate their specific feelings about combination classes and that several teachers qualified their attitude about combination classes. These latter teachers remarked that combination classes can have positive features if the circumstances are right, and this theme was more clearly and regularly articulated when we asked teachers about the advantages and disadvantages of combination classes.

Of all the interview questions, we coded the most responses when teachers were asked about the advantages and disadvantages of combination classes. Some 161 responses were coded, 65 advantages and 96 disadvantages. Table 7 presents these results, by grouping approach, along with our organization of teachers’ responses into four broad categories: curriculum, instruction, socialization/management, and administration. While no apparent differences can be ascertained between grouping approaches, frequency differences were found between the four categories as well as between advantages and disadvantages.

Advantage comments focused primarily on the curriculum benefits for students. Teachers most frequently mentioned that lower-grade students benefitted from being “exposed” to the advanced curriculum presented to higher-grade students (14 comments) or that upper-grade

students benefitted from the “reinforcement” gained through reviews provided during instruction with lower-grade students (11 comments).

**Exposure and Reinforcement:** . . . *lower-grade students can learn upper grade material and upper-grade students get review.*

Benefits related to instruction, socialization/management, and administration were infrequently mentioned, although 10 teachers said peer tutoring could be advantageously used and 5 said social skills were developed.

**Peer Tutoring:** They *learn well from each other. They can work with each other. I have a lot of group learning.. small groups, one-on-one, and small groupings of five that work together.*

**Social Skills:** *The advantages are that they do learn well from each other. . . . they 're learning some social skills that they need to learn. Particularly for the grade level that's lower, they're being introduced to a lot more than they would in their single grade, so they can achieve at their own level.*

Teachers' disadvantage comments also most frequently focused on curriculum; however, almost as many teachers pointed out disadvantages related to instruction. Diminished time for curriculum planning (e.g., developing two curricula, two lesson plans) and instruction (presenting concepts and explanations, working with individuals) were mentioned by 25 and 23 teachers, respectively.

**Time for Curriculum Planning:** *You really are writing two sets of lesson plans and really are doing two preparations for every subject you teach. Even though you can teach to grade level objectives, eventually you have to key in on two different grade levels. I think that's a disadvantage.*

**Time for Instruction:** *I guess it would be the fact that I have to stop at a certain point with one grade level in order to get the other grade level some of the concepts they need to cover, then go back to the grade level I started with if they don't understand. I have to divide my time more significantly, and I don't know if that's best or not.*

**Time for Individual Help:** . . . *they lose out on personal attention they should be getting. They lose out on a lot of activities that they could be doing, but you*

*can't do them when you have two grades. . . .it's very hard to do both things at the same time, so you end up not doing a lot of things you could be doing because you 're limited in time.*

Eleven teachers said that combination classes led to a “watered down” curriculum that “under exposed” students to curriculum content because it was simply impossible to cover two curricula in the amount of time normally devoted to one curriculum in a single-grade class.

*Exposure: The disadvantages are often times we are presenting a watered down curriculum just because of the time element; we don't have the time to spend presenting the material to the kids that we would if it was a straight grade.*

Overall, curriculum exposure (both to the benefit and detriment of students), and concerns about time for planning and instruction dominated teachers' comments about the advantages and disadvantages of combination classes.

## **Discussion**

The purpose of this study was to describe teachers' views on combination classes. Thirty-five combination teachers from 16 schools in three suburban districts were randomly selected and interviewed about their teaching experiences in combination classes. Interviews were audiotaped and transcribed, and responses to questions were categorized. Data were organized according to three sets of research questions: (1) How are students and teachers assigned to combination classes? (2) How do teachers organize students for and teach combination classes? and (3) How do teachers feel about teaching combination classes?

Two general findings emerged. First, teachers generally had negative feelings about teaching combination classes. Second, teachers generally approached combination classes with a mixed grouping strategy, where the class was divided into separate groups for some subjects

and the class was taught as a single group for other subjects. Each of these findings is discussed below, along with our analysis of what each finding means.

### ***Teachers' Feelings About Combination Classes***

The teachers in this study generally had negative feelings about combination classes. They thought students should be assigned to combination classes on the basis of student characteristics (ability, independence, behavior), thereby creating more favorable class compositions, but they indicated that purposive student assignment was not possible due to year-round, multi-track scheduling constraints. Teachers also said principals have little flexibility in assigning teachers to combination classes and, when flexibility does exist, that seniority most frequently determines teacher assignment. Thus, teachers in this sample were typically given classroom assignments not of their own choosing, with classroom compositions created serendipitously rather than purposively. These assignments resulted in extremely heterogeneous classes spanning two grade levels, the frequent need for two lesson plans, divided time for instruction and individual assistance, and, consequently, extra effort and time expenditures by teachers. It is understandable, then, that the large majority of these teachers preferred not to teach combination classes and that they viewed them in negative terms.

It is quite possible that the largely negative view of combination class teaching is attributable, at least in part, to the limitations year-round calendars place on the formation of classes. Thirty of the 35 teachers in the sample taught in year-round schools where principals and teachers usually have little flexibility for placing different types of students in classrooms. Presumably, traditional calendar schools generally provide more opportunities for homogeneous assignment and placement of independent students into combination classes, thus creating more

favorable classroom compositions. Our analysis of the five traditional calendar teachers' views, however, did not support this presumption. These teachers' views were just as negative as those who taught in year-round schools. Furthermore, their views paralleled identically those found in Brown and Martin's (1989) study where teachers were drawn totally from traditional calendar schools. Still, it is difficult to draw firm conclusions due to the small number of traditional calendar teachers.

While the majority of teachers in this sample expressed negative views about combination classes, a few teachers spoke positively, and five even preferred these classes. The five who preferred combination classes were experienced teachers with relatively favorable contexts in which to work (e.g., small class size, aides, independent students, high achievers, curriculum development flexibility). We infer from this that combination classes can be made more palatable if purposive student assignment can be managed (e.g., assigning independent students, reducing the ability range and numbers of behavioral problem students).

Although extra work is clearly involved in managing two curriculums, it is also possible that purposively-formed combination classes may have more favorable classroom compositions than typical heterogeneous single-grade classes. Despite the curriculum and instruction demands, the assignment of homogeneous groups and desirable students to combination classes may in fact provide teachers with conditions comparable to those of single-grade classes. As one of the five teachers with a positive view on combination classes put it:

***... when you have a regular class, you still have children who are far apart in their abilities. I don't think I've ever had a class where everybody is doing grade level work. You always have a combination class even though it's all the same grade.***

We think it is important to realize, however, that major trade-offs may be involved in such purposive assignment strategies. Since individual students may be thought of as potential

resources contributing to particular class distributions, the placement of several independent students into combination classes may ease the burden that teachers face in these classes at the expense of single-grade classes. As any teacher would likely verify, the assignment of large numbers of dependent students, special needs students, or behavior-problem students to single-grade classes, as a result of purposively managing combination classes, can certainly create major teaching and learning problems. Conceivably, student achievement, self-concept, and social effects could in some cases be devastating (not to mention the effect on the teacher). Interestingly, few teachers in this study mentioned such trade-offs. We suspect the reason for this is that few multi-track, year-round schools are able to consistently capitalize on this strategy. It is also plausible that such trade-offs would be more frequently mentioned by single-grade teachers impacted by the purposive assignment of students to combination classes.

These purposive assignment strategies, used by many principals and teachers to organize combination classes when such flexibility exists, clearly merit further investigation. The literature on homogeneous grouping in single-grade classes may have implications for this practice in combination classes. Slavin (1989), for example, argues that research has failed to find any correlation between class homogeneity and student achievement. Furthermore, some researchers assert instructional practices become lax and student outcomes suffer when classes become too homogeneous (e.g., Goldberg, Passow, & Justman, 1966; Good & Stipek, 1983). As Good and Stipek (1983) point out, teachers with homogeneous classes may make unwarranted assumptions about student understanding, check understanding less frequently, and provide less feedback and fewer correctives than teachers who instruct larger, more diverse classes.

### *Teachers' Approaches to Combination Classes*

Our second finding was that a large majority of teachers used a mixed approach for teaching combination classes, using two groups for some subjects and a whole-class format for others. The mixed approach appears to be a result of complex dilemmas surrounding the advantages and disadvantages of two-group and whole-class teaching. Two-group teaching allows a teacher to cover both curriculums but generally divides each group's instructional time in half, and it requires considerable mental and physical energy from the teacher. Whole-class teaching affords teachers more instructional time and is less draining on the teacher, but it may not allow any practical way to address two curriculums, especially if they are highly differentiated. This press toward covering two curriculums was the foremost concern expressed by teachers and also their primary source of discontent due to the amount of work involved and the instructional disadvantages.

There appear to be at least two explanations why the majority of teachers used the mixed approach. The first explanation is that teachers seek to adopt whole-class approaches in some subjects merely to "cope" with the excessive work demands of two-group teaching. A second explanation is based on "effectiveness" whereby teachers learn to develop and present a single curriculum that meets the needs of students from two grade levels.

Although the coping explanation for a mixed approach was not explicitly mentioned by teachers, there are several lines of indirect evidence supporting this explanation. First, while a large majority of teachers expressed the need for and use of two-group approaches in reading and mathematics due to the importance of covering two curriculums, these expressions were not as apparent in their discussions of social studies and science. This may reflect that teachers have a conception of reading/language arts and mathematics that fundamentally differs from that of

social studies and science. Because social studies and science have historically been viewed more topically and with less emphasis on skills, the press toward using two curriculums is likely not as great, and teachers may have found it easier to deal with students at two grade levels through a single curriculum. This could change, however, if science and social studies curriculums become better defined and teachers are forced to deal with each curriculum separately. In states where grade level assessment of science or social studies hold teachers accountable for specified curriculums, we would anticipate a decrease in the use of whole-class teaching approaches by combination class teachers.

The second line of evidence comes from the fact that novice teachers more frequently used a two-group approach than experienced teachers. This may suggest that over time teachers adapt to the demands of two-group teaching by using whole-class approaches when possible. Similarly, if effectiveness was the basis for using whole-class approaches, one might expect the four whole-class teachers in this study to speak more positively about their combination classes. This was not the case, however. Not one of the four whole-class teachers preferred to teach combination classes, even though all were veterans with several years experience with these classes.

The second explanation for the majority of teachers using a mixed approach is that teachers think whole-class approaches are more effective. This explanation is supported by the fact that a number of teachers argued for the whole-language or thematic teaching strategies widely disseminated among elementary teachers (cf. Hoffman, 1989). It is unclear from the data, however, whether combination teachers are using whole-language or thematic strategies with the entire class or whether they do so with each grade level using a two-group approach.

Each explanation accounts for our finding that a majority of teachers used a mixed approach for teaching combination classes, and it is quite possible that both explanations are correct, but for different subgroups of teachers. Although the coping explanation is consistent with recent research on how teachers approach social studies and mathematics instruction (Stodolsky, 1988), future research on this issue would be instructive.

### ***Future Research***

Several researchers have noted the need for research on combination classes (Miller, 1989; Rule, 1983; Veenman et al., 1987). This study indicates that an examination of combination class teaching methods (two group and whole class) and their interactions with student assignment practices (e.g., heterogenous and homogeneous), types of students, and subject matters would be instructive. Since many teachers expressed concerns regarding the effective presentation of curriculum and management of students in combination classes, it would also be informative to study combination teachers who are highly effective (i.e., students, parents, principals, and peers recognize their expertise and student engagement and outcomes are relatively high).

Observational research is needed to clarify if various approaches to teaching combination classes (e.g., whole-class and two-group formats) differ significantly from teaching single-grade classes. Similarly, educators would be well served by experimental research that carefully documents whether student outcomes (achievement, attitudes, independent behavior) differ between combination and single-grade classes with similar students. Such research, unlike that which exists presently, should carefully control for student, teacher, and school effects, as well as curriculum differences and the Hawthorne effect.

Research on whether a lack of strategic student and teacher assignment in year-round, multi-track schools leads to deleterious effects is also needed. It appears that year-round, multi-track schools may constrain or totally obstruct the strategic placement of students, supposedly an important mechanism for balancing classes and organizing appropriate learning environments. Linking certain students and teachers; creating balance in ethnicity , gender, and ability; and avoiding classes that have inordinate numbers of special education or behavior-problem students appears to be important. However, a large majority of teachers report that year-round, multi-track schools severely limit such procedures. Preliminary work on a related interview study of principals has indicated that principals also report scheduling constraints in year-round schools with multi-tracks (Burns et al., 1993). The validity of these concerns and their effects, however, remain to be confirmed. Finally, interviews with principals, parents, and students are needed; understanding their viewpoints would be important.

Research on these and other questions about combination classes would provide practitioners and scholars with important information to guide decision making and theory development. Although the present exploratory study provides some initial insights into a few questions about combination classes, it has also uncovered several issues that warrant further investigation. Given the substantial number of combination classes in the United States and elsewhere, and the expansion of year-round schooling in some states, such research is clearly needed.

## Footnotes

<sup>1</sup>The authors wish to thank the three superintendents in the participating districts for assisting in this study. We also express our appreciation to an ad hoc committee of teachers and principals from the three districts; their help in thinking through important issues, developing questions, and piloting the interview schedule was invaluable. We also thank the University of California, Riverside Graduate School and the Minority Student Research Internship Program for providing valuable resource support. Finally, Douglas Mitchell, Janet Stimson, and Jane Zykowski made valuable suggestions on an earlier draft of this report.

<sup>2</sup>In this report, a combination class is defined as a class comprised of students from two adjacent grade levels and taught predominantly all day by a single teacher. Combination classes, as defined here, are a subset of multigrade classes, a structure that infers two or more grade levels.

<sup>3</sup>**Craft** knowledge has been described as specific, contextualized information about teaching that is possessed by practitioners (e.g., see Leinhardt, 1990). According to Leinhardt (1990, p. 18), researchers, teacher educators, and those responsible for certifying and licensing teachers have recently recognized the need to “access, codify, and transmit the critical issues of the craft knowledge with theory and empirical research to design a complete, valid assessment of teachers.”

While craft knowledge includes in-depth and context specific knowledge about teaching, it often contains idiosyncratic, superstitious, and erroneous opinions. That is, while many aspects of craft knowledge are likely to be “true” in certain contexts, other situations would find them to be inaccurate.

## Appendix 1

### Combination Teachers' Interview Schedule

#### *Directory Questions*

1. How long have you been teaching?
2. How many years have you taught at your current grade level?
3. What combination grade levels do you presently teach (. . .have you most recently taught?)
4. How much experience have you had with combination classes?
5. How many college courses have you had in teaching mathematics?
6. How much training have you had since becoming a teacher? (Have you had any special staff development workshops or inservice seminars in the teaching of mathematics?)
7. Do you prefer to teach combination classes?
8. Do you teach in a year-round or traditional school?
9. How often do aides or parent volunteers or high school tutors or other helpers assist you during mathematics?

#### *Organizational Questions*

10. School wide, what strategies do principals use to organize combination classes? (That is, how do principals generally assign students? How do they determine who goes into combination classes?)
11. School wide, what strategies do you consider important when organizing combination classes? Research that probes for more specific or different information about curriculum, instruction, and classroom management or about political and philosophical issues that were not pursued in this study might be enlightening as well.
12. School wide, how are teachers assigned to teach combination classes?
13. After students have been assigned to your combination class, what, if any, grouping strategies do you generally use for instruction?
14. Do you group any differently for mathematics in your combination class as compared to other subjects?

#### *Curriculum and Instruction Questions*

15. What specific curriculum strategies do you generally use that you feel are effective in teaching your combination classes? (That is, how do you present your different curricula?)
16. Do these curriculum strategies differ from teaching mathematics in combination classes? If so, how?
17. Do these curriculum strategies differ from teaching mathematics in single-grade classes? If so, how?

## Appendix 1 (Continued)

18. What specific management strategies do you use that you feel are effective in teaching your combination classes in mathematics? (That is, do you have certain management tricks that make for a smooth classroom operation?)
19. Do these strategies differ from teaching single-grade classes mathematics: If so, how?
20. What specific instructional strategies do you use that you feel are effective in teaching your combination classes in mathematics? (That is, do you have ways of presenting concepts, skills, or content that make for effective instruction?)
21. Do these strategies differ from teaching single-grade classes mathematics? If so, how?
22. What do you see as the essential components of a good mathematics program? **PROBE**
23. What do you do when students need additional help or they are ready to move on?

### *Affective Questions*

24. What is your general feeling about combination classes?
25. What are the advantages and disadvantages of combination classes? **PROBE**
26. How many parents express concerns to you about combination classes?
- 21.** How do you handle parent concerns about combination classes?
28. What kinds of concerns, if any, do students express about combination classes?
29. And, how do you handle these student concerns?
30. Anything else that you want to add about teaching combination classes?

## Appendix 2

### Illustration of Interview Analysis Procedure

Question: School wide, what strategies do principals use to organize combination classes. That is, how do principals generally assign students? How do they determine who goes into combination classes?

(ability)  
[high achievers-lower]  
[low achievers-upper]

**Teacher 1:** Last year we started out with single grades and half way through the year, because of crowding, one entire track became combination classes and he picked the track that was most crowded and (he picked) the students room according to abilities. In other words, they moved smart students up to the grade level above and kept the lower students in the other class. I had to move the 12 high students on up to the 3-4 combo and kept **my** lower students, and then I was given 10 higher second graders.

(numbers)

**Teacher 2:** I don't think there is any organization to it. I think it is looked at in that "these are our numbers, and these are the students we're going to place in the class. They don't try to keep track of the students. There's nothing done; it's just "we have this many left over and this many left over, let's stick them together."

(tracks-numbers)  
(not same teacher)

**Teacher 3:** Well, it depends. Uh, different principals do it for different reasons. Here at this school, they just put in combinations because of year-round (schooling). They just put combinations together because they didn't want a child to have the same teacher again. So, like, they had to have 'em because of year-round. So any child that the teacher next door had last year, she won't have this year, so they'd be put in the combination class, a different class, just, that's how they do it, they just threw together the kids that, uh, needed a different teacher at that grade.

(numbers)

**Teacher 4:** I have a principal here who tries not to make combination classes, and I think when they are made it's just paper work, its not done by any kind of (systematic method?), and actually it's been the experience of my children too, in their schools, is that it's just a matter of it's easier to have more slots to stick kids in and that's the only criteria that's used if they have too many second graders and not enough first graders so they make a combination. That's what I think that they have talked about doing here. Like last year they had too many third graders and low on second graders so they talked about making it a two-three combination, so it's a matter of need.

(ability)

**Teacher 5:** At our school, our grade levels are asked to meet and we combine kids, not on mathematics ability at the lower level, we're combining kids based on understanding language arts. We're more concerned that kids are able to read. If they can't read they won't be able to do very much in math anyway. In my class, I have high second graders that can read high and low third graders reading ability. But the third graders are not low in mathematics. They are combined by achievement levels.

(ability)  
[high achiever-lower]  
[low achiever-upper]

**Teacher 6:** I'm not sure. Some schools place lower grade students who are excelling with higher grade students who need reinforcement.

(tea. recommendation)

**Teacher 7:** The way that we've done at both of the schools that I've been at is that the teachers, for instance, finishing third graders meet to determine who will be in the fourth grade classes; and we fill out a placement card on each of the students dealing with their academic performance and their behavior and special needs; we sort the cards, for instance, five high kids, five low kids; one of the questions on the card is "will this kid do well in a

## Appendix 2 (Continued)

(independent students)  
(well-behaved students)  
(ability)

combination-class?" Generally, those we check yes on are independent workers, well-behaved students. Some teachers--say it's going to be a 4-5 combination and they have a fifth grader that might need a little remedial work, so they might choose to put him in a combination class, I personally don't unless the student's personality fits the teacher, I don't do it on academic achievement.

**Interviewer:** So you personally think that it's not academic achievement, it's just more independence?

**Teacher 7:** More independence because, depending on the combination teacher, they do a lot of independent work. If they're already struggling and their self-esteem is low and they're given a packet of work to work on and the teacher teaches the other grade, it can be real defeating.

(numbers)  
(tea. recommendation)  
(independent students)  
(ability) [avg/high]

**Teacher 8:** Our school may be a little bit different. The way the district sets it up is they take your student population and divide it by the ratio and that's how your classes are set up. If we have 75 sixth graders, there will be 2 classes of straight sixth and those extra 5 go into combination classes. The way that we do it at our school (is) we have placement cards. The teachers know the students and figure out which students will work well in a combination class. Ones that don't need a lot of extra help. People who read near grade level.

(tea. recommendation)

(ability)  
[high-achiever lower]  
[low-achiever upper]

(independent students)

**Teacher 9:** We're pretty fortunate here. Well, the principals more or less have let the teachers get together at the end of the year. Or Mr. Brown has let the teachers get together at the end of the year and split up the kids and place them how the teachers think they should be placed. At first grade, I know that one of the first grade teachers prefer having, when she's working first grade combination, having low second graders and high first graders, because then they're just about at the same level. That way you can also split up the kids that you know won't get along. But usually some teachers like having high, if it **was** a 1st-2nd, some teachers like having high, if it was a 1st-2nd, high first and high second, and then that way they would both work independently. Mr. Brown more or less let the teachers get together and decide where the kids should be placed.

(numbers)  
(not sure)

**Teacher 10:** That you may check with Mrs. Fine. I don't know the requirements for putting a child on any particular track at their grade level in a combo or straight class. My guess would be that it's based on population. Distribution--I don't know for sure.

**Table 1***Strategies that Teachers Say Principals Use to Organize Combination Classes and Those They Think Should Be Used*

Assignment Strategy	Strategies that Principals Use		Strategies that Should be Used	
	n	%	n	%
Numbers and track placement	25	71	<b>0</b>	<b>0</b>
Ability	9	26	22	63
Independent students	7	20	14	40
Well-behaved students	<b>5</b>	14	4	11
Teacher recommendations	<b>5</b>	14	2	6
Not sure/no opinion	4	11	<b>5</b>	14
Not in combo class two years in a row	2	6	<b>0</b>	0
Special programs (GATE, bilingual)	2	6	2	6
Not with same teacher two years in a row	1	<b>3</b>	<b>0</b>	0
Sociability	1	<b>3</b>	1	3
No siblings	<b>0</b>	<b>0</b>	1	3
Heterogeneous assignment	<b>0</b>	<b>0</b>	2	6

Note. Teachers provided multiple strategies; percentages were determined by using the total number of teachers as the denominator.

**Table 2***Strategies Teachers Say principals Use to Assign Them to Combination Classes*

Assignment Strategy	<i>n</i>	%
Random Context/Situational Needs	32	91
Teacher on Track or Grade Level	(21)	
Rotation/Not Two Years in a Row	(11)	
Seniority/Experience	18	51
Teachers with Least Seniority or Experience	(9)	
Teachers with More Seniority or Not in First Year	(9)	
Volunteers	5	14
Special Classes (GATE, Bilingual)	3	9
Don't Know or Not Sure	2	6
Teacher Opposition	2	6
Principal Request/Preference	1	3

Note. Teachers provided multiple strategies; percentages were determined by using the total number of teachers as the denominator.

**Table 3***Grouping Approaches by Experience and Grade Level*

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Approaches	Primary		Intermediate		Row Sum
	Novice	Experienced	Novice	Experienced	
Two group	1	1	3	2	7
Whole class	0	0	0	4	4
Mixed	5	6	3	10	24
Column Sum	6	7	6	16	35

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**Table 4***Curriculum Strategies that Teachers State are Effective for Teaching Combination Classes*

<i>n</i>	Strategy
<b><i>Student Organization (46 comments)</i></b>	
10	Use two groups; instruct one, other group work independently
7	Expect more from higher group (e.g., coverage, assignments)
5	Use whole-class approach
4	Keep both groups involved in same subject at same time
4	Look at students individually or diagnose for placement
3	Use cooperative learning groups
2	Use volunteers to help with second group
2	Have seatwork ready for independent group
2	Rotate teaching from one group one day to other group next
1	Share schedule with students
1	Share subjects/students with other teachers (departmentalize)
1	Schedule one group into library, etc. to allow time with one group
1	Have students in reading pair up and read to partners
1	Teach separate social studies to 5th and 6th graders
1	Use small groups for California History
1	Do language arts as if all students were in higher grade
<b><i>Curriculum Approach (31 comments)</i></b>	
10	Use whole language or thematic teaching
7	Combine curriculum or integrate curriculum
3	Focus on basics and life skills
3	Combine mathematics and science
2	Make sure not to duplicate curriculum
1	Write unique, integrated curriculum
1	Include critical thinking
1	Include problem solving
1	Use art work to have students demonstrate understanding
1	Use district objectives to identify common lessons
1	Focus on language and mathematics
<b><i>Instructional Delivery (17 comments)</i></b>	
4	Provide direct instruction/demonstration, then individualize
4	Use hands on materials, concretes
1	Use a variety of approaches
1	Keep groups on task
1	Use peer tutoring for instruction
1	Use plays and simulations
1	Use brainstorming anticipatory set, categorization, cognitive mapping
1	Use overhead to teach concepts
1	Use guided imagery
1	Use discovery learning
1	Instruct to median of high and low groups

**Table 5***Teachers' Preference for Teaching Combination Classes by Experience and Grade Level*


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Preference	Primary		Intermediate		Row Sum
	Novice	Experienced	Novice	Experienced	
Yes	1	1	0	3	5
Indifferent/It depends	0	1	2	0	3
No	5	5	4	13	27
Column Sum	6	7	6	16	35

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**Table 6***Teachers' Feeling About Combination Classes by Experience and Grade Level*


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Feeling	Primary		Intermediate		Row Sum
	Novice	Experienced	Novice	Experienced	
Positive	1	0	0	4	5
Indifferent/It depends	1	2	4	5	12
Negative	4	5	2	7	18
Column Sum	6	7	6	16	35

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**Table 7**

*Teachers' Views About the Advantages and Disadvantages of Combination Classes by Grouping Approach*

Teacher Type	Area of Advantage or Disadvantage			
	Curriculum	Instruction	Socialization/Management	Administration
A D V A N T A G E S	whole Class (7)	3 curriculum exposure 2 reinforcement	1 peer tutoring 1 achievement	
	Mixed (46)	1 curriculum exposure 7 reinforcement 1 gain knowledge of students' needs 1 encourages thematic approaches 1 use of a variety of materials	6 peer tutoring 3 achievement 1 meets individual needs 1 better discussions	5 develops social skills 4 well-behaved classes 2 provides role models for younger students 1 develops independent skills
D I S A V A N T A G E S	Two Groups (12)	4 curriculum exposure 2 reinforcement [28]	3 peer tutoring 1 achievement [17]	2 develops social skills [14]
	Whole Class (11)	4 preparing two curriculums (time) 1 repetition of curriculum 1 curriculum exposure	3 time for instruction/ individual help 1 achievement	1 independent work
	Mixed (69)	15 preparing two curriculums (time) 9 curriculum exposure 5 no curriculum materials 1 less reinforcement	16 time for instruction/ individual help 5 extreme heterogeneity 4 achievement 2 independent work 1 student responsiveness	1 recess different from peers 1 range of maturity 1 mix of students 1 problem if teacher-student conflict 1 behavior problems
	Two Groups (16)	6 preparing two curriculums (time) [42]	4 time for instruction/ individual help 1 instructional time 1 instruction interrupted 1 takes skillful teacher 1 achievement [39]	2 students unable to socialize with peers 1 too much happening 191 [6]

Note. N = 4 for whole-class teachers, n = 24 for mixed teachers, and n = 7 for two-group teacher. Numbers in parentheses represent numbers of comments across the four areas (curriculum, instruction, socialization/management, and administration). Numbers in brackets represent numbers of advantage or disadvantage comments within the four areas.

## References

- Brown, K. G., & Martin, A. B. (1989). Student achievement in multigrade and single grade classes. *Education Canada*, *29*, 16-18.
- Burns, R., Mason, D. A., & DeMiranda, M. (1993). How principals assign students to classes. (Tech. Rep.). Riverside: University of California, California Educational Research Cooperative.
- Goldberg, M., Passow, A., & Justman, J. (1966). *The effects of ability grouping*. New York: Teachers College Press.
- Good, T. L., & Stipek, D. (1983). Individual differences in the classroom: A psychological perspective. In M. Fenstermacher & J. Goodlad (Eds.), *NSSE Yearbook*.
- H.M. Inspectors of Schools (1978). *Primary education in schools*. (London, DES).
- Hoffman, J. (Ed.). (1989). Whole language [Special Issue]. *The Elementary School Journal*, *90*(2).
- Leinhardt, G. (1990). Capturing *craft* knowledge *in* teaching. *Educational Researcher*, *19*(2), 18-25.
- Mason, D. A., Burns, R., Colwell, K., & Armesto, J. (in progress). Multigrade classes: A *review of the literature*. Unpublished manuscript.
- Mason, D. A., & Wilson, D. (1991). A study of combination class teaching. Proposal developed for the California Educational Research Cooperative. Riverside, CA: California Educational Research Cooperative.

- Miller, B. A. (1989). The ***multigrade classroom: A resource handbook for small, rural school***. Portland, OR: Northwest Regional Educational Laboratory.
- Muse, I., Smith, R., & Barker, B. (1987). ***The one teacher school in the 1980s. Las Cruces***, MN: ERIC Clearinghouse on Rural Education and Small Schools.
- Pietila, A. (Ed.). (1978). ***Small schools and combined grades in Finland***. Helsinki, Finland. (ERIC Document Reproduction Service No. ED 161 564).
- Pratt, C., & Treacy, K. (1986). ***A study of student grouping practices in early childhood classes in western Australia government primary schools***. (Cooperative Research Series #9). Nedlands, Australia: Education Department of Western Australia.
- Rule, G. (1983). Effects of multigrade grouping on elementary student achievement in reading and mathematics. (Doctoral dissertation, Northern Arizona University). ***Dissertation Information Service No 83 15672***.
- Slavin, R. E. (1987). Ability grouping and student achievement in elementary schools: A best-evidence synthesis. ***Review of Educational Research***, 57(3), 293-336.
- Slavin, R. E. (1989). ***School and classroom organization***. Hillsdale, NJ: Erlbaum.
- Stodolsky, S. (1988). ***The subject matters: Classroom activities in math and social studies***. Chicago: University of Chicago Press.
- Veenman, S., Lem, P., & Winkelmoen, B. (1985). Active learning time in **mixed age** classes. ***Educational Studies***, 11(3), 171-180.
- Veenman, S., Voeten, M., & Lem, P. (1987). Classroom time and achievement in **mixed-age** classes. ***Educational Studies***, 13(1), 75-89.

Table 7

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Teacher Type	Area of Advantage or Disadvantage				
	Curriculum	Instruction	Socialization/Management	Administration	
A D V A N T A G E S	Whole Class (7)	3 curriculum exposure 2 reinforcement	1 peer tutoring 1 achievement		
	Mixed (46)	7 curriculum exposure 7 reinforcement 1 gain knowledge of students' needs 1 encourages thematic approaches 1 use of a variety of materials	6 peer tutoring 3 achievement 1 meets individual needs 1 better discussions	5 develops social skills 4 well-behaved classes 2 provides role models for younger students 1 develops independent skills 3 smaller class size 2 more placement slots 1 administrative sympathy	
	Two Groups (12)	4 curriculum exposure 2 reinforcement [28]	3 peer tutoring 1 achievement [17]	2 develops social skills [14]	[6]
	<hr/>				
D I S A D V A N T A G E S	Whole Class (11)	4 preparing two curriculums (time) 1 repetition of curriculum 1 curriculum exposure	3 time for instruction/ individual help 1 achievement	1 independent work	
	Mixed (69)	15 preparing two curriculums (time) 9 curriculum exposure 5 no curriculum materials 1 less reinforcement	16 time for instruction/ individual help 5 extreme heterogeneity 4 achievement 2 independent work 1 student responsiveness	1 recess different from peers 1 range of maturity 1 mix of students 1 problem if teacher-student conflict 1 behavior problems 2 administrative support 2 parent criticism 1 larger class size 1 testing problems	
	Two Groups (16)	6 preparing two curriculums (time) [42]	4 time for instruction/ individual help 1 instructional time 1 instruction interrupted 1 takes skillful teacher 1 achievement [39]	2 students unable to socialize with peers 1 too much happening [9]	[6]

Note. N = 4 for whole-class teachers, n = 24 for mixed teachers, and n = 7 for two-group teachers. Numbers in parentheses represent numbers of comments across the four areas (curriculum, instruction, socialization/management, and administration). Numbers in brackets represent numbers of advantage or disadvantage comments within the four areas