SAGE IMPLEMENTATION & CLASSROOM QUALITY

2006-7 STUDENT ACHIEVEMENT GUARANTEE IN EDUCATION QUALITATIVE EVALUATION

SUBMITTED BY

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ABSTRACT

This report explores how local schools implement the *Student Achievement Guarantee in Education (SAGE)* program, incorporating SAGE resources into existing program structures. Building on fieldwork with nine SAGE schools since 2004, we examined implementation of the SAGE pillars of *class size reduction, connecting home and school, rigorous curriculum, and professional development.*

The 9 schools in our sample were chosen to represent a range of geographic locations, student performance, and class size reduction configurations. The Classroom Assessment Scoring System (CLASS) assessed classroom quality in 27 classrooms. Ethnographic field notes for 9 classrooms in 3 schools informed a subset case study. Additional data included interviews with teachers and principals, surveys of teachers, collection of artifacts, and SAGE End of Year Report, completed by all SAGE schools.

The research findings correspond to the SAGE pillars. The class size reduction section describes configurations used to reduce class size and challenges to implementing this pillar. The Lighted Schoolhouse section describes the activities used to connect home and school and the role of resources in facilitating relationships. The rigorous curriculum section examines how classroom quality can leverage the opportunities provided through class size reduction through descriptive analysis of CLASS ratings and examples of practice. The professional development discussion describes the support provided to SAGE teachers and the qualities found to be most valuable.

In the final section, we offer conclusions, recommendations, and implications for future study.

BACKGROUND TO 2006-7 RESEARCH

Since 2004, researchers from WCER have been studying the implementation of the *Student Achievement in Education (SAGE)* (see Appendix A for SAGE law) in a sample of nine schools in south central Wisconsin. The sample was designed to represent characteristics relevant to the SAGE program, inclusive of urban, rural, and semi-urban settings, a range of student achievement, and a variety of class size reduction configurations. The student achievement categories were defined in relation to performance relative to expectations as well as trends over time: high achieving, low achieving, and rapidly improving (an increase of 20% over a three year period). See Table 1 for a demographic description of the nine-school sample.

Chosen in collaboration with DPI staff, the sample schools hosted researchers across three years of fieldwork. Fieldwork in year one (2004-5) included case studies of nine schools. Data collection included: 1) eight half day observations in each of three classrooms in each school: a kindergarten, a first grade, and either second or third grade, 2) multiple interviews with the principal and observed teachers, 3) interviews with students, 4) the use of standardized observation tools, and 5) the collection of artifacts. In year two (2005-6) the research team returned to each of the schools from the first year of data collection. Fieldwork included focus group interviews with families in each school and interviews with the principal and select teachers.

The research in years one and two generated a rich set of reports that detail the challenges and successes of implementing SAGE in diverse contexts. These reports may be found at the following website: http://varc.wceruw.org/sage/.

These papers, policy briefs, and presentations have examined how the context in which SAGE is implemented shapes the nature of SAGE teaching and learning, children's and families' perspectives on their experiences in SAGE schools, the use of assessment, the needs for professional development, and the roles of leadership. These analyses provided a sense of the range of practice in SAGE schools, illustrating the idea that SAGE is not a single educational treatment across all sites. This finding served as a foundation for fieldwork in year three (2006-7, represented in this report), which focused on implementation of SAGE pillars. In the next section we outline the literature that is relevant to our analyses.

Table 1

2006-2007 SAGE School Sample Characteristics[1]

School	Farmington	Bethany	Calloway	Earhart	Gallows	McMahon	Montford	Wellstone Blvd.	West Canton
Geography	Rural	Urban	Urban	Semi-urban	Urban	Semi-urban	Rural	Urban	Rural
District	Farmington	Mallard	Mallard	Maxwell	Mallard	Bellamy	Walton River	Mallard	West Canton
Enrollment	442	487	300	242	599	233	500	337	306
% Black	0.9	80.3	13.3	31	64.9	31.8	3.8	78.6	1.3
% Hispanic	5.9	1.8	44	14	19	21.9	2.2	6.8	1.6
% White	91	11.1	35	33.5	15	43.8	83.2	6.5	96.4
% Asian	0.5	6.4	5	20.2	0.8	2.1	8.8	6.5	0.7
% ELL	0.2	1.4	1.9	33.9	1.2	13.7	8.4	12.5	n/a
% Students with disabilities	20.4	16	13	8.7	39.6	25.8	16.2	13.1	13.7
% FRPL	58.4	84	78.7	66.1	88.8	68.2	64.4	95.3	37.6
Wisconsin 4th Grade Knowledge & Concepts Test 2006 Percent Proficient & Advanced - Reading									
Mean	83%	82%	85%	82%	53%	79%	75%	66%	95%
Wisconsin 4th Grade Knowledge & Concepts Test 2006 Percent Proficient & Advanced - Math									
Mean	72%	59%	67%	64%	39%	46%	77%	40%	82%
Performance Relative to Expectations[2]									
	1.24	3.15	5.93	3.46	-5.24	4.82	-1.04	-8.65	1.62

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[1] All names are pseudonyms

[2] This school performance estimate combines three years of data for each school to provide a more stable and reliable estimate of the expected percent of students proficient or above in grade 3 reading, controlling for student characteristics and average teacher experience and training. Schools with a performance estimate of around zero are performing at expectations, given the population of students who took the tests and the teacher characteristics. Schools with negative performance estimates are doing less well then expected, and schools with positive estimates better than expected.

Literature Review

As an "achievement guarantee" the designers of SAGE created a program with multiple components (the "pillars") that, theoretically, work together to support student learning and achievement. Although SAGE has four pillars, of which "class size reduction" is but one, SAGE is popularly understood to be a class size reduction program. We therefore focus our literature review first on class size reduction literature.

Class Size Reduction

Class size reduction researchers have used a variety of perspectives and methods in their work. The most prominent approach to this type of research has treated "class size" as a structural input that potentially impacts student achievement.

Through analyses of small scale studies (Englehart, 2006; 2007), surveys (Hanushek, 2003; Hedges, Laine, & Greenwald, 1994; Milesi & Gamoran, 2006; Wenglinsky, 1997), implementation studies (Finn & Achilles, 1990; Finn, Gerber, Achilles, & Boyd-Zaharias, 2001; Molnar et al., 1999; Nye, Hedges, & Konstantopoulos, 2004; Smith, Molnar, & Zahorik, 2003; Stecher, Bohrnstedt, Kirst, McRobbie, & Williams, 2001), and research syntheses (Biddle & Berliner, 2002; Ehrenberg, Brewer, Gamoran, & Willms, 2001; Glass & Smith, 1979; Grissmer, 1999) many researchers have noted that careful implementation of small classes in the primary grades yields positive outcomes for students. Small class effects are typically positive across student characteristics and are greater for students traditionally seen to be "at risk."

In earlier work describing the implementation of class size reduction reforms, Graue et al. (2007) outlined three generations of scholarship on the topic. The *first* generation sought to identify linear relationships between class size and student outcomes. This work was—and continues to be— designed to answer the question, "*Does* class size reduction work?" by linking class size with student outcomes. It has been the most prominent form of analysis on the topic for over a decade. More recent studies that apply this logic use it to assess the merits of class size reduction relative to other structural inputs (e.g. teacher education attainment, lengthened school days).

The *second* generation of class size reduction research widens the scope of inquiry by linking class size, teacher action, and student achievement. This work focuses on teacher behavior and teaching strategies:

> Smaller classes provide opportunities for teachers to engage in practices that improve student achievement. Some teachers take advantage of these opportunities; others do not. When teachers take advantage of these opportunities, the likelihood of increasing student achievement is greater. When teachers fail to take advantage of these opportunities, it is smaller. It is what teachers do in and with smaller classes that make the difference, not simply being in smaller classes. (Anderson, 2002, p. 52)

This approach to the class size reduction question contrasted teachers who had been observed with both larger and smaller groups or worked to link specific behaviors to student achievement levels. Work in this genre asks the question "*How* do teachers take advantage of class size reduction opportunities?"

We see our work falling within a *third* generation of research which, once more, widens the scope of inquiry by situating student outcomes at the nexus of teacher action, school culture,

and the particular approach taken to instruction within a class size reduction context. We have been heavily influenced by two sets of scholarship. The first is the work of Peter Blatchford and colleagues who take *a contextual approach* to understanding the dynamics of class size:

> Our results suggest that it is not just down to the teacher. In contrast to a direct model, it is not entirely the teacher's responsibility; contextual factors cannot be ignored. Teachers will vary in their effectiveness, but the size of the class and the size of the groups in the class necessarily affect what a teacher has to deal with, and can present her with choices and the need for compromises. Class size is therefore one environmental contextual factor that will influence teachers and pupils in a number of ways. (Blatchford, 2003b, p. 160)

This view is reflected in our own contextual approach that assumed that *school culture shaped what teachers could do in SAGE classrooms* and that administrative as well as instructional decision-making contributed to quality of interactions within these classrooms. Teacher practice exists in particular contexts that provide professional resources that enhance what individual teachers bring to their students. Across our three years of fieldwork, we found that school culture can enable quality (through peer collaboration or program development) or it can inhibit the work of individual teachers (through poor administrative management or negative relationships).[3]

We have also been influenced by work that argues that development and learning are promoted through the *interaction of teachers and students* rather than through the presence or absence of particular materials in specific kinds of contexts. This is so because:

> Teaching has been defined as an "interactive and interpersonal process" (Amidon & Hunter, 1967; Klauer, 1985) suggesting that interactions between children and teachers are a primary mechanism through which classroom experiences affect development. (LeParo et al., 2004, p. 412)

From this work, it is clear that "teachers' instructional interactions with children have the greatest value for students' performance when they are focused, direct, intentional, and characterized by feedback loops involving student performance," (Hamre & Pianta, 2005, p. 951). However, as the designers of SAGE seem to have known, these interactions do not occur in a bubble, they are set within complex frames of practice.

Moving forward

In recent years, researchers have begun to embed their work in multilevel studies of classrooms, focusing on the connections between structural variables, such as class size, teacher education level, and materials provided— and process-oriented variables, such as the quality and depth of student-teacher interactions (see for example Stuhlman & Pianta, under review; NICHD, 2005). Cassidy et al. (2005) argue for research that investigates multiple dimensions of classrooms quality:

> It is clear that a multitude of factors within the environment as well as factors associated with each individual child and his/her family are complexly interwoven into this dynamic system. In order to understand this system we need to tease apart the contributions of each of these factors. Studying specific aspects of process quality in conjunction with the

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[3] See papers from previous field work for examples.

individual characteristics of children and teachers within a specific context will provide greater insights into the aspects of quality that matter the most. (p. 517)

This approach recognizes that the number of people in a classroom is important in the degree that it effects instructional interactions. In many ways the SAGE legislation was a precursor to this focus on multidimensional approaches to enhancing student experiences through its four element approach to reform. It prompts attention to class size, instructional practices, teacher development and links between home and school, all aspects that are relevant to instructional interactions.

As any teacher knows, teachers and students are dynamic beings: they act, interact, and affect their environments. Implicit in the theories of 'why' class size reduction is an effective strategy for improving test scores is the idea that reducing class size or lowering pupil-teacher ratio alters some fundamental qualities of classroom interactions.[4] These dynamic teachers are within dynamic classrooms that are affected by multiple contexts (Talbert & McLaughlin, 1994), such as schools practices, administrative structures, and district, state and federal policies. Understanding quality in *class size reduction contexts* is about more than *how many or how much*; it is also about understanding the *processes and interactions* in many areas of schooling *that contribute to learning*. We describe how we approached the task of understanding these processes and interactions in the next section.

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[4] For example, Finn, Pannozzo, & Achilles (2003) explore the theories about 'why' class size reduction is associated with "pervasive, long-lasting academic benefits" (p. 322). Through a review of research on class size in relation to the mechanisms that are altered through class size reduction, Finn et al focus on student engagement and behaviors. They cite a need for more research on the factors that promote student engagement, the impact of class size and other structural features on different groups of students, the role of contextual variables as they affect student engagement, and the direct study of four specific mechanisms postulated in the review as influential in class size reduction contexts. Nye, Hedges, and Konstantopoulos (2002) also cite a need for more research on the mechanisms that produce class size effects, particularly differential class size effects. This sentiment is echoed by Hanushek (2002) when he concluded that "just providing more resources… is unlikely to lead to higher student achievement as long as future actions of schools are consistent with their past choices and behavior" (pp. 38-39).

2006-7 Methodology:

Research Design, Data Collection & Analysis

Research Design

Assumptions guiding design of 2006-7 research:

1. SAGE provides two types of resources: a vision of educational practice specified by program components and financial resources to offset its costs. These resources are inert, however, until they are activated in practice.

2. The four pillars of SAGE are designed to address teaching and learning as a complex system. Recognizing the complexity of challenges in the education system, SAGE combines class size reduction, attention to what is taught, teacher support and development, and community resources for families. This model implies that SAGE implementation is a synergistic system, in which full implementation across all four pillars generates more potential for positive student outcomes than partial implementation.

With these assumptions in mind, research was designed around these questions:

1. How are SAGE resources activated in local contexts?

    a. What knowledge and skills are needed to build instructional capacity related to SAGE teaching and learning?

    b. What structural and organizational resources (money, space, time, social networks) support effective activation?

    c. How does this activation relate to learning or other opportunities for students, teachers, and administrators?

2. How does the degree of SAGE implementation vary across all elements and relate to student outcomes?

    a. What combinations of implementation of the four pillars relate to effective activation of SAGE instructional capacity? How do these combinations vary depending on the school setting?

    b. What combinations of implementation are most effective in supporting student achievement? How do these combinations vary depending on the school setting?

These research questions led us to focus on the SAGE pillars, focusing on the following elements of implementation within each pillar:

Table 2

Sub-foci for Research on SAGE Pillars

SAGE pillar	Foci and questions for data collection
Class size reduction (CSR)	• Descriptions and inquiries of class size and staffing across the year • How is supplementary staffing used to reduce/maintain class size? • How are grouping practices within a classroom contributing to this pillar? • How does teaming support CSR?
Lighted schoolhouse	• Descriptions of activities used to connect home and school at classroom, school, and district levels
Rigorous curriculum	• Descriptions of instructional practices, their relation to class size and to curriculum, assessment, and reporting functions. • If a school implements Direct Instruction, how do they implement it? • Full description of classroom practices related to emotional support, instructional support, and classroom organization.
Professional development	• Documentation of professional development opportunities and experiences at district, school, and individual level • What types of professional development do teachers believe they need?

Data Collection

We returned to 3 schools in the 9-school sample from years one and two (2004-6) that appeared to represent high levels of implementation of pillars and higher levels of student achievement to explore "best practice." Through analysis of prior years' test score data, it was determined that Calloway (urban), Earhart (semi-urban), and Montford (rural) were improving rapidly and seemed to have in place reforms that are changing the culture at the school.[5] Building on previous relationships with staff, we returned to classrooms from our initial sample to collect the following data (a detailed description for each **bolded** item follows):

- Seven half-day observations of instructional practice in three classrooms per school, including videotaping of typical lessons

- Observations of professional development to include planning with colleagues, teacher evaluation, and content enrichment in each school

- Observations of activities that connect home and school, to include classroom level and at school level

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[5] Prior years' research classified three level of school achievement: low-achieving, rapidly improving, and high achieving. See publications at http://varc.wceruw.org/sage/ for more information on these classifications.

- Interviews with principal twice per year (protocols provided in Appendix C)

- Interviews with teachers three times per year (protocols provided in Appendix C)

- Collection of documents related to class size reduction, curriculum, professional development, and home-school relations

- Standardized observations to detail instructional practice and time allocation, using the ***Classroom Assessment Scoring System*** (see description of CLASS below and in Appendix B)

- **Teacher survey** with all SAGE teachers in the building (survey provided in Appendix E)

- The **SAGE End of Year Report** completed by representatives of all SAGE schools across Wisconsin (questions provided in Appendix F)

- Wisconsin's Information Network for Successful Schools (WINSS), publicly available at http://dpi.wi.gov/sig/index.html was used to procure school-level test score data and demographic information (provided in Table 1)

At the request of the Department of Public Instruction (DPI), we also collected data at the remaining six schools (not chosen as case study schools) from the initial sample. For these schools we once again visited three classrooms: one kindergarten, one first grade, and either a second or a third grade. Wherever possible we revisited classrooms we had observed in 2004-5. In each school, we:

- Conducted standardized observations to detail instructional practice and time allocation, using the Classroom Assessment Scoring System in each classroom

- Conducted interviews with principals and each teacher observed using CLASS (protocols provided in Appendix D)

- Collected data via the teacher survey (Appendix E), completed by all SAGE teachers

Teacher Survey

In spring 2007, we piloted the teacher survey in nine SAGE schools that had been part of our fieldwork sample since 2004. Each SAGE teacher in the school was offered a $5 gift card for completing the 16-item instrument (see Appendix E for the instrument). There were 100 respondents for a response rate of 85%. Grade levels were represented in the following proportions K=31%, 1=28%, 2=21%, and 3=20%. Since there were exactly 100 respondents all of the percentages mentioned in this report also reflect the number of respondents. The purpose of the survey was to gain a better understanding of teachers' perspectives on and experiences with the SAGE pillars.

SAGE End of Year Report

The SAGE End of Year (EoY) report is completed on an annual basis by a representative of each SAGE school across the state and consists of 33 items. In 2007, the Wisconsin Center for Educational Research (WCER) teamed with the Wisconsin DPI to create an instrument for submission via the internet that would be useful for both program administration and research. See Appendix F for the questions and possible answers on the 2007 report. Please note, however, this document is not the actual instrument used, since the actual instrument is not a Microsoft

Word document, but an internet form. Representatives from 480 schools (with a total of 6198 SAGE classes) completed the report in the spring of 2007.

Classroom Assessment Scoring System

Since it is by far the most technically complex instrument used for data collection, we provide a detailed description of the Classroom Assessment Scoring System (CLASS) (see Pianta, LaParo & Hamre, 2006, 2008a, 2008b) here.

CLASS provides a common metric for understanding classroom quality, but moves beyond other rating systems by providing a distinct lens on *how* classroom interactions function alongside educational resources. We chose CLASS because of its 1) strong empirical record, with use in over 3000 classrooms Pre-K through grade three, 2) its focus on domains identified as important within the literature on class size reduction, and 3) its strong psychometric properties. We used CLASS to support systematic observation of classroom processes with a common metric for the 27 classrooms and 9 schools in our sample. The domains and dimensions rated by CLASS are described in Table 3.

All team members have completed in-depth training and are certified CLASS coders. In each classroom, one certified rater observed and coded classroom practice across four thirty-minute cycles[6] of instruction with CLASS. These observations generated brief field notes from which the observer derived ratings of 1-7 on each of the CLASS dimensions. Ratings are categorized at three levels: 1-2 = low, 3-5 = midrange, 6-7 = high. Average scores were tabulated across four cycles and CLASS dimension and domain scores calculated by both classroom and school.

It is important to note that CLASS is not a measure of "teacher quality" but of "classroom quality." This is relevant because it recognizes that teacher skill and knowledge are mediated by structural factors like physical space, schedules, supplementary staffing, and the availability of materials. Classroom quality, as experienced by individual students, is funneled through all these resources. For example, during rating periods when there are multiple adults in a classroom (support personnel, special education teachers, substitute teachers, administrators, etc.) CLASS focuses on the average experience of students in the classroom, using the same indicators as it would with a single teacher. CLASS rates the supports and organization for student learning, and is comprised of a diverse set of factors that includes, but is not limited to, teacher quality.

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[6] In one classroom, academic practice was available across only three observation sessions. For several classrooms, there were 5-6 observation cycles and the most representative four were included in the scoring.

Table 3

Classroom Assessment Scoring System Measures of Quality

CLASS DOMAIN	Emotional Support (ES)	Classroom Organization (CO)	Instructional Support (IS)
THEORETICAL SOURCE(S) & RATIONALE	Attachment & Self-determination theories Students who are connected socially and motivated to learn show constructive developmental patterns.	Theories of self-regulation Positive organization helps students learn active and constructive control of thought and behavior.	Cognitive science research Scaffolding knowledge acquisition and attention to comprehension and metacognitive awareness support intellectual development.
DESCRIPTION	Quality of social and emotional classroom processes. Predictive of literacy performance, positive self-concept and engagement in learning.	Quality of management and organization of time, student behavior and attention. Correlates to academic gains and engagement.	Quality of classroom interactions structuring language and concept learning. Predictive of academic functioning and engagement.
DIMENSIONS	Positive Climate Negative Climate (reversed) Teacher Sensitivity Regard for Student Perspectives	Behavior Management Productivity Instructional Learning Formats	Concept Development Quality of Feedback Language Modeling

CLASS and School Level Achievement Data. We became interested in measures of classroom quality to better understand the affordances created by SAGE. It was clear that analyses of student performance were incomplete ways to understand class size reduction. But student achievement is one of the main ways that people judge policies.

For each school in our sample, we examined CLASS ratings by school achievement, using categories (high, moderate, and low) suggested by school performance on the state fourth grade reading test, given in the fall of 2006. We used school-level achievement data from WINNS to form three categories: high (more than 80% of students scored at the proficient or advanced levels), moderate (70-79% of students score at the proficient or advanced levels), and low (less than 70% of students scored at proficient or advanced levels). The results of this analysis are presented in Table 4.

Table 4

CLASS Domains by School Achievement on State Grade Four Reading Test

Student achievement on WKCE	Emotional Support	Classroom Organization	Instructional Support	Student Engagement	CLASS Mean
High (n=5)	5.70	5.61	4.76	5.73	5.38
Moderate (n=2)	5.34	5.13	4.46	5.38	5.08
Low (n=2)	4.82	4.78	3.88	4.86	4.58

High = >80% proficient & advanced
Moderate = 70-79% proficient & advanced
Low = <70% proficient & advanced

The ratings follow the expected pattern, with higher CLASS ratings for high performing schools, followed by moderately performing schools, then low performing schools. This is an indication that CLASS, aggregated at the school level, provides a measure of quality that is related to student achievement.

Analyzing Diverse Data

Analysis began with the examination of the quantitative data at our disposal, starting with the information on SAGE statewide implementation patterns. This provided us with a sense of how practices were distributed in this class size reduction reform at a structural level, to try to understand patterns contextually. We then explored the CLASS ratings of quality from different perspectives, looking for patterns, again by structural elements such as school achievement and class size reduction configurations. We worked between CLASS quality ratings and our case study data to construct practice vignettes to contrast times when the opportunities afforded by class size reduction were realized and those times when opportunities were missed. We were able to pair CLASS observations directly with qualitative field notes for nine of the classrooms, strengthening the links among data collected within those time frames for analytic purposes. Our use of CLASS was complemented by three years of data collection in these sites, including extensive field notes, interviews, and artifacts providing a multilayered source for analysis.

This approach had both inductive and deductive elements. From three years of data generation in these nine schools, we had a sense of the tensions among simple structural explanations for the SAGE program's success, links between school and individual teacher practice, and student outcomes. Applying classic statistical reasoning to the case study data, we observed that the variation within schools or SAGE configurations was often as great as the variation between schools. It was therefore important to examine closely patterns in administrative practice, teacher beliefs, types of classroom interaction, and school achievement. In contrast, we also worked from the ratings to the case study data, exploring likenesses and differences in high, midrange, and low rated classrooms. We looked for confirming and disconfirming evidence for the patterns we identified. This was particularly powerful as we had

team members who had long-term involvement in each site and the CLASS rater who had visited all sites. We could work between depth and breadth of knowledge across the team to triangulate the assertions made at each step of our work. From these analyses we constructed contrasts of practice.

The cases in this report illustrate a border-spanning attempt to understand how class size reduction can impact classroom quality. We use multiple data sources to examine the organizational practices that create a context for teaching and learning, while looking closely at a small number of classrooms (relative to the large samples that have come out of CLASS research to date) to describe specific approaches to leveraging SAGE resources for students.

2006-7 RESEARCH FINDINGS

Introduction

Following the suggestions of Ball and Forzani (2007) that research on class size reduction should be instructionally focused, we examined *how* SAGE's approach to class size reduction both defines and is defined by classroom quality:

> Questions about why class size matters to student learning are squarely instructional. They concern what happens inside classrooms when teachers help a smaller number of students negotiate new content. Researchers might consider, for example, the types of instructional activities that teachers are able to plan for and enact when working with only a relatively small number of students or the extent to which smaller class size allows for more productive interactions among students. (p. 532)

This is necessary because the purpose of SAGE, according to the DPI website is to "promote academic achievement through lower class sizes in the primary grades."[7] If academic achievement is the goal of SAGE and the means by which the state chooses to achieve this is "reduced class size," then some degree of focus on classroom interactions and activities is necessary. However, SAGE is about more than simply reduced class size. It is a systemic reform that has implications for professional development, home-school-community relations, and curricula.

Although we recognize that we cannot make a causal argument about SAGE's impact on quality—the design of our study does not allow that kind of inference—we can provide layered descriptions of: (1) the multiple contexts in which SAGE is implemented, (2) the dimensions of quality present in a sample of SAGE schools, and (3) the patterns of implementation related to quality and practice in context.

SAGE Program

SAGE is a state supported class size reduction program that provides funding to limit class sizes to 15:1 in grades K-3 in almost 500 Wisconsin schools. In addition to the class size component, the SAGE legislation includes three additional implementation pillars:

1. *Education and human services*, designed to strengthen the links between home and school through the keeping the school building open for extended hours and connecting families with community resources *(*referred to as the *Lighted Schoolhouse* pillar)

2. *Curriculum*, created to encourage ongoing evaluation of school curricula (referred to as *Rigorous Curriculum* pillar)

3. *Staff development and accountability*, designed to enhance teacher professional development and evaluation (referred to as the *Professional Development* pillar).

This multidimensional approach represents the recognition that improving student achievement is a complex challenge that requires equally complex interventions, particularly in communities troubled by racism and poverty (Molnar & Zmrazek, 1994). Although initially developed as a targeted reform to address concerns about urban poverty, SAGE was opened to all Wisconsin schools as of the 2000-01 school year. Currently, SAGE schools receive $2250 per low-income child in grades K-3 to offset costs of implementation.

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[7] See: http://dpi.wi.gov/sage/ (current language retrieved on July 5, 2008)

The majority of SAGE schools have been participating in the program for between eight and ten years. Notably, in complex organizations like schools, change is gradual. At this point, as reflected in this section of this report, there are schools and individuals that are quite in sync with the overarching "vision" of the SAGE program and there are others who could benefit from learning new ways to approach these pillars.
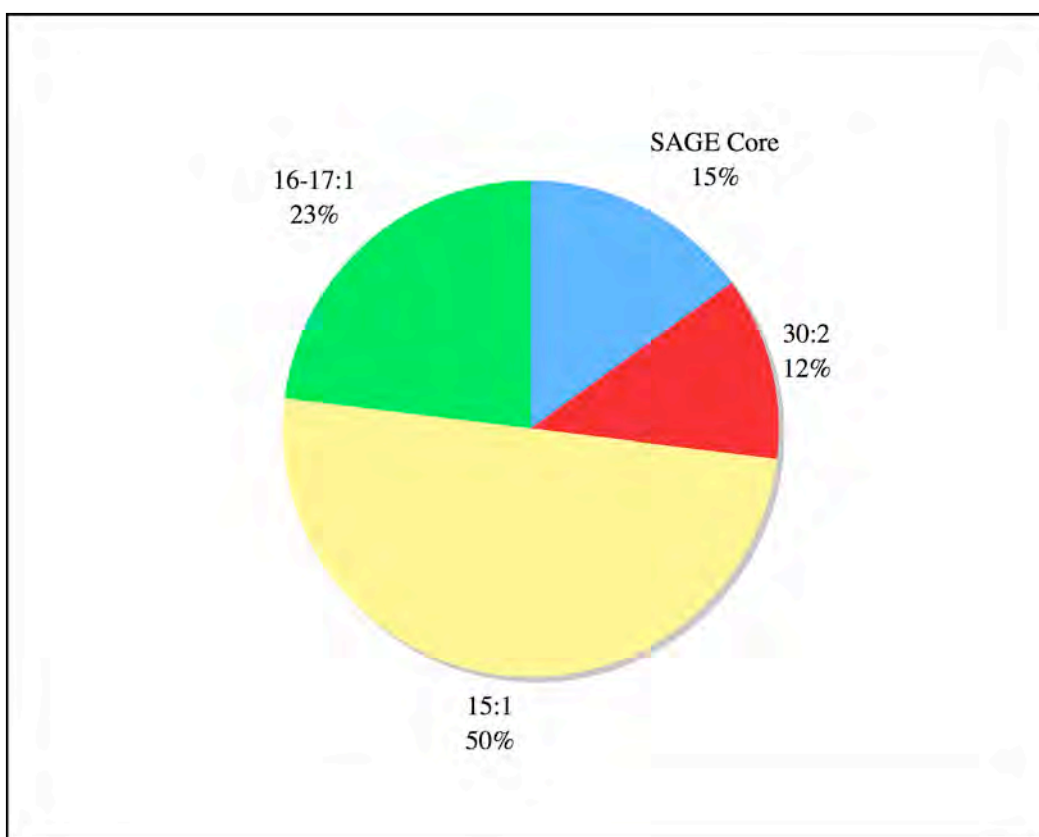
Our primary focus is not whether specific structures, detailed in the SAGE legislation, are in place, but rather, our focus is on how these structures are beneficial for teachers and the students they teach. In other words, we focus on the process of making these structures meaningful for the school community. There is no "one best" practice that would be appropriate in all circumstances. Instead, we have found that decision-makers at all levels do what is best for them in their contexts. SAGE represents a change in the status quo, even a decade after its initial implementation. It shifted expectations and practices to meet the needs of our most vulnerable students through its multidimensional approach to education and had to be integrated into the culture of the school to be meaningful. Its effectiveness depends a great deal on what has traditionally happened in the school prior to the implementation of the reform. Because the SAGE program started in schools with a variety of norms already in place, people in school apply different interpretations to what each of the sub-pillars, stated above, means, and which are most important and why.

The point of this analysis is not to criticize schools, administrators, and teachers who have not yet reached a point where they are working on integrating specific parts of the SAGE law into their school cultures; it is to illustrate the ways in which these pillars *can be* implemented in practice-improving ways. To illustrate this, some comparisons are necessary. Some of the examples presented here compare more promising practices with those that are less reflective and less in sync with the "vision" of the SAGE program. The interesting story, for qualitative researchers and school improvement, is in the often overlooked details that, in the end, make all of the difference.

Class Size Reduction[8]

Compliance with the Class Size Reduction pillar of Wisconsin's SAGE Law requires schools to *reduce class size to 15 students in at least grades kindergarten to 3* based on the third Friday count. Analyses of data from the 2006-7 EoY Report show that schools used variations of the following configurations:

- 15 students and 1 teacher in a single classroom
- 30 students and 2 teachers in a single classroom that is divided into two classroom spaces (constituting two 15:1 spaces)
- 30 students and 2 teachers who team teach in the same classroom
- SAGE core in which an additional teacher is added for literacy & math instruction

Figure 1. **Percent of SAGE Sections Statewide by Configuration (n=6198 SAGE sections).**

According to the EoY, half of the classrooms have what might be called a simple version of SAGE – 50% of the 6198 sections are 15 students (or less) and 1 teacher 100% of the time.

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[8] The literature on class size reduction distinguishes between strategies that focus on reducing group size and those that focus on pupil-teacher ratio (Addonizio & Phelps, 2000; Biddle & Berliner, 2002; Blatchford & Mortimore, 1994; Ehrenberg et al., 2001; Finn, 2002; Finn et al., 2003; Odden, 1990). The logic of teaching a group of 15 students and one teacher is different than the logic of designing instruction for 30 students and 2 teachers. In our research and this analysis we examine variations on implementation to explore these differences. We note that DPI treats these two approaches as equivalent.

Another 23% are what we call "bulging SAGE" – the upper limit is stretched to 16 or 17. These additions are often the result of increases in student enrollment after the state headcount that occurs at the end of September (which determines staffing in most districts). The last quarter is split between sections in which two teachers are either paired with a larger group of students full-time, usually due to space constraints, or another version of SAGE referred to as "core SAGE" (which requires a waiver from the state and is only granted in special circumstances) where a teacher is added during core instructional time, specifically during literacy and mathematics instruction. These proportional patterns are found across SAGE's K-3 span.

Stretching the 15:1 Boundary

With almost a quarter of SAGE classrooms larger than the 15:1 ratio, we looked across data sources to understand why. The 2005-6 EoY report indicated several broad trends that shaped larger than normal SAGE classrooms and we explored these trends in the nine school sample. The trends were: enrollment shifts, limited funding, limited space and special programming considerations. We explore each of these below, drawing on interview and observation data. This section will conclude with a discussion of implications of the Class Size Reduction Pillar for teaching practice.

Enrollment growth. In terms of the most common factor affecting SAGE configuration—enrollment growth—teachers and principals noted that student mobility and imperfect enrollment projections make SAGE difficult to implement as a 15:1 program. These realities forced schools to juggle the needs and preferences of teachers and what might be best for students given changing circumstances and different levels of resources. Sometimes this meant re-shaping SAGE outside the bounds of its stated 15:1 requirements. In fact, more than one administrator that we spoke with interpreted the 15:1 pupil teacher ratio clearly stated in the SAGE Law as a *minimum* number of students per classroom, and they pushed the limits upward.

Bill Post, administrator of high performing McMahon Elementary School in semi-urban Bellamy District, faced unpredictable enrollment in his small school and experimented with a variety of ways of addressing the issue, which were sometimes met with opposition from staff members:

> We've deliberately avoided the 30 to 2. We did actually four years ago knock out a wall and created two, we had two big classrooms and we put in temporary walls, and reduced it to three classrooms. So we made [one space] smaller because we didn't really want to go through that 30:2. So all of them are 1 to 15 or a little bit, a little variation... . It's always a little controversial because at the beginning of the year we start up as high as 18 and then attrition down... . For example, if a family comes in with four children and one first grader and one third grader and one fourth and one fifth I don't like to say, well we've got room in these three but we're going to send Charlie, the six-year-old you know across town... . I don't do that. So sometimes I will you know the teachers at 16 you know I'll bump them back up to 17... . So that's what I really like about the system, it's not a rigid system. It's got good guidelines and we try our best to adhere to them and I think we do. Teachers sometimes though will get a little, a little irritable when the numbers are above 15... . And some of them get spoiled, they really do. And one has even admitted that to me. He said, "We do get spoiled by these numbers."

The numbers game was particularly difficult in a small school like McMahon that had only 2-3 class sections per grade level K-3. There was no way to aggregate students across

sections to form another class while maintaining single-grade class sections. Mr. Post's primary allegiance was to keep families intact at his school rather than keep class sizes down.

At rapidly improving Calloway Elementary School in the large urban Mallard School District, there were clear challenges in the face of declining enrollments and the impact of the district's open enrollment program. Students who were counted in enrollment projections left neighborhood schools last-minute as wait-listed school requests were granted. This led to uneven class sizes among the grade levels and difficult decisions about restructuring class configurations once the school year was under way. As Calloway Principal Mrs. Collier explained:

> I think there needs to be a little leeway in SAGE numbers. [The district] wants us to be exactly 15 to 1 in September. And that's a little, that's a problem because everyone who signs up does not show up. And therefore we rarely get children during the school year. We started at 300, I think 307, and we're down to 290 because during the school year they rarely, they rarely come in. So what we do is we add like about an extra five seats. Because in the past that's about how many people don't show up at each grade level. Sometimes it works, sometimes it doesn't. So it's difficult to stay with that number. There needs to be a little leeway arranged. Like I said, 18. That every class should be 15 to 18 children. So that way we're not out of compliance. And we're actually trying to do you know what is in the best interest of children... It's hard to have a class where you have maybe two children at this grade level and three children at the next grade level, one child at the next one. So then okay we're going to have an extra class. And we'll have first, second, and third grades all in one room. Because I only had one or two children over. At each grade level. So that didn't make sense.

Administrators were not the only ones who thought about numbers. Teachers often provided interpretations of circumstances that added to administrators' perspectives. Like her principal Mrs. Collier, Calloway kindergarten teacher Linda Trainer saw inaccurate enrollment projections as a problem:

> The first grade team should also be pairing. Right now [first grade has] 12, 12, and 12 [students per class] ... So our other concern was first grade might not have enough. They are each short three. So that's nine kids. But it's that whole stupid game that Mallard has to play by third Friday. [The students who ended up leaving Calloway last-minute] were on a waiting list somewhere else. But we have no control over that.
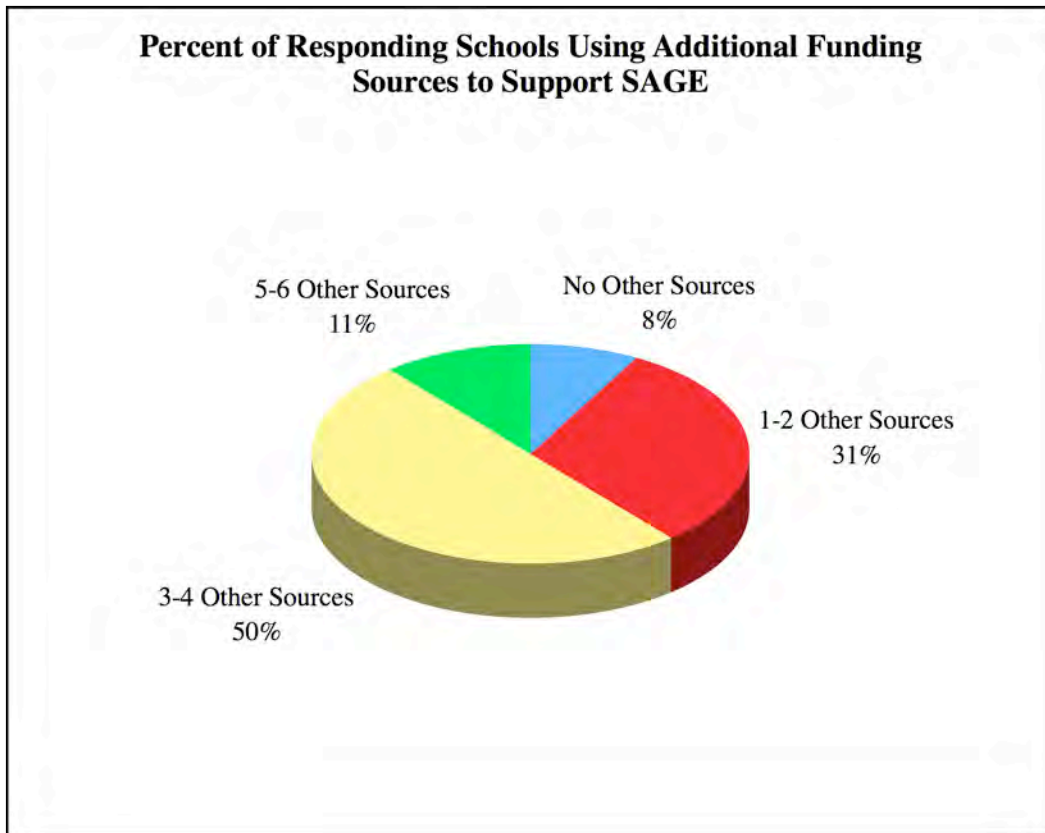
Other schools worked around the extra body question by moving to multi-age classrooms. Earhart configured their classes as K, 1, 2/3, and 4/5 so that enrollment fluctuations were buffered across sections. Likewise, West Canton accommodated a numbers bubble by forming a 1/2 section.

Rachael Ellsworth, assistant principal at low-performing Gallows Elementary, also in urban Mallard District, clearly saw a 15:1 ratio as a *minimum* SAGE requirement given attendance patterns at the school. In fact, for Ms. Ellsworth, 16:1 was a legitimate SAGE pupil teacher ratio given her thinking that a classroom community is the number of students in attendance on a given day. Her interpretation was an actuarial approach, based on the typical number of students in attendance rather than the number of students on record. She explained:

[Ideally, SAGE] would look like what it is. 15, 16. I think that's the norm, because you have to consider we live in [Wisconsin], we have snow days, you have children get sick in elementary school so when they are absent you have less than 16, 15, 14.

In the cases of McMahon, Calloway, and Gallows, re-interpretations of the SAGE Law by administrators made the 15:1 enrollment limit elastic, thus affecting the classroom lives of teachers and students.

Limited funding. The EoY report indicated that schools used multiple sources of revenue, in addition to SAGE funds of $2,250 per low-income child, to support class size reduction (see Figure 2). 50% of schools reported in the EoY that they used 3-4 sources of aid to fund the Class Size Reduction Pillar, while only 8% of schools were able to work with SAGE aid alone.

Percent of Responding Schools Using Additional Funding Sources to Support SAGE

5-6 Other Sources 11%

No Other Sources 8%

1-2 Other Sources 31%

3-4 Other Sources 50%

Figure 2. **Number of funding sources used to support class size reduction (n= 480 schools).**

Rural schools in our sample certainly felt the crunch in the face of revenue loss, with tightening budgets and school consolidation diminishing discretionary classroom space. As Catherine Paley, principal of Farmington Elementary, describes, core SAGE implementation was being considered for these reasons:

Well I think this is something that's a difficulty in overall school funding. I think it's very difficult in schools in general, rural schools in particular, where you have declining enrollment right now, we're struggling with what each year is going to look like. We had a failed referendum this year. Our school is going to be taking fourth and fifth graders

from some of our outlying buildings next year, those students are coming here. There's a possibility two outlying buildings are going to close year after next. There's a lot of uncertainty. There's a lot of concern among staff which makes things difficult. And because of that you're going to have certain teachers displaced, they're moving into other positions... Well we're sitting right now with numbers projected out for next year. That I will have a first grade and a second grade classroom. Each of them probably 22 to 24 children and we currently have a teacher-and-a-half for each of those rooms. We have one teacher going between the two. I do not want to see that happen. Because I know we'll meet the *letter* of the SAGE law ... during math and reading instruction.

A critical concern, and one informing and limiting SAGE implementation at Montford, was the implementation of SAGE across district schools. There was a concern that SAGE was not targeted to the low-income children that really needed the additional support of smaller classes. In Walton River, a district with varied socio-economic levels across elementary schools, *all* schools participated in the SAGE program, regardless of the demographics of the school. Given SAGE's initial design to reduce the effects of poverty, this seemed counterintuitive to staff at Montford. They saw huge needs in their school community that they felt were unmet because the district allocated large sums of money to more affluent schools to fund SAGE. As Diane Felton, a veteran first grade teacher in the district, explained:

You know if you're going to have a program that's supposed to level the playing field, and that's what the purpose of SAGE was, then have it truly be a program that levels the playing field... . 1 to 15 is perfect and it's ideal in any school. But am I leveling the playing field if it's 1 to 15 at Montford, which is 60 percent free and reduced lunch and 1 to 15 at a school like Westgate, where they've got maybe 20 percent free and reduced lunch? They get the same programs and the same opportunities. Is that really leveling the playing field? In my mind, you're giving kids opportunities and I'm not denying that they all need that, but if we truly want to help the kids that are at risk and the people that need the help, we've got to make sure that that's where that goes.

Dina Monroe, second grade SAGE teacher at Montford, echoed Mrs. Felton's concerns and underlined teachers' efforts to intervene in district funding schemes:

And it's been a district policy that they tried to give it to all different schools. So every school will have SAGE. And, we just don't think that's fair. And we brought up to superintendents and brought up to Mary [the principal] and Mary knows that too. . .And then there's the schools that have 100 percent proficient on reading and language arts for the WKCE and they get SAGE... . Yeah, so the whole closing the gap, obviously isn't happening with that... . [The district] thinks it's fair that what this school gets, [each] school needs to get... . And that's not even evening the playing field... . It's probably increasing the gap.

Across the state, Jenny Kryzinski, a teacher at high performing rural West Canton and a school board liaison, was angry that resources were dwindling, and so were parents:

I saw one board member ... just a great parent and she's so frustrated. You can just tell because she knows anything that comes she's like "It's good for kids but can we afford it?" And it's not, "Is it good for kids first, can we afford it" second? It's "Can we afford it? And are we going to get enough bang for our buck to do it?" And she's been through

the years where it wasn't like that. So it's so painful for her to see that that's the first thing I have to think about. Where's the money going to come from? And then I can think about whether we can do it or not.

Limited space. School buildings have finite space and implementing SAGE occurred within those finite spaces. At Montford Elementary School, overcrowding was a significant issue. As small group and individualized instruction were valued practices at Montford, teachers and the administrator were flexible in creating distinct alternative spaces for instruction. This is not to say that these places were educationally ideal, however. In second grade, half the class worked in a small computer room at literacy time, until they were deposed by an overcrowded sixth grade class. Small groups also worked in an exterior corridor but there were complaints that it got very cold in the winter. In kindergarten, there were makeshift learning spaces in the bathroom where students would be assessed to the sounds and smells of toilets flushing. When working in their hallway literacy class space, often-distractible 5-year-olds would bring carpet squares along so they would not get their bottoms wet on the well-traveled floor. Here it was not uncommon for a young student to leave the group and run up and down the hall.

At Earhart Elementary School, a diverse student body with a significant (34 %) number of English Language Learners, there were also interesting uses of limited space with two teachers working separately within physically divided classrooms, making the best of less-than-ideal circumstances:

> This is an interesting situation since I was in this room in 2004-05 when it was a 30:2 team taught situation. Last year they split the space with large cabinets and unfortunately the more senior colleague on the other side of the wall did not fairly split the space. Ms. Masters worked in very cramped conditions but this year the split is 50-50. She has designed it to take advantage of every inch – it is masterfully organized to manage movement... . A light comes on (turned on from next door?) The class next door can be heard quietly. The teacher said at lunch that her group doesn't rest anymore... . The room is well organized and has clearly marked activity areas. While it might seem too small for K instruction, the organization makes it reasonable. [Ms. Masters keeps a close ear on the noise level and says,] "We are starting to get very excited and very wound up. Take some deep breaths. Put it out slowly. Breathe in slowly. Do you feel your bodies calming down? I feel my body calming down. When I call your name you make a choice. It sounds like Mrs. Baker's class is still doing math time. Please respect their learning time." (Earhart Elementary fieldnotes, Molly Jackson Masters, 30:2 shared space kindergarten)

Crystal Stephens, a 30:2 kindergarten teacher at Bethany, a high-performing school in Mallard District, described how district transfer policies interacted with SAGE 30:2 team teaching in ways that limited educational practice:

> I no longer work with the person that I was sharing a room with [over the past several years], so the person that I'm sharing a room with now, it's like night and day. This is a person that when they came in was not hired by the school but came through seniority... it's been hard. And so the class has just been divided. It's like two groups sharing a space with the room divided down the middle ... [with my former partner it was] more shared, everything. One teacher would play off the other one, you know the kids didn't know

who their teacher was. ... We used [the divider] very little then. We used it for reading groups and that was about it.

Down the hall at Bethany, Patience Carter, a 15:1 third grade teacher who had worked in a variety of SAGE configurations was having a delightful and productive year. Ms. Carter had sufficient space for hands on activities and could afford the out-of-pocket costs of a small group:

So this year [as opposed to other years when I shared a 30:2 SAGE room with a divider down the middle] I could actually, you saw my room pretty messy ... I could take a table and we could do decoupage globes that have to sit out ... you know let that dry while we're doing something else without having to feel, you know that space factor. And the cost factor. Because of course I buy all this stuff, you know we made salt maps. I could buy the play-doh out of my own pocket of course and it wasn't as expensive, but just all those hands-on projects because the kids have really been able to learn from that... .

Bethany principal Dave Willenski connected "gold standard" 15:1 class size configuration, transition to larger class sizes at fourth grade, and the concerns of preparation of students for high-stakes tests, describing the reasoning behind the shift to 15:1's at the third grade:

I think the rationale behind the 15 to 1 at the third grade is kind of an important year. Especially transition, it's an age, transition level type situation. Um, so I wanted to keep the class sizes smaller. To keep that interaction you know as good as possible. But I also know too with things being 30 to 2 at a second grade level you know that a lot of preparation for the WKCE is done there.

Special programming considerations. In several classes we observed, there were special education students who spent time both in and out of general education settings. In some cases, it seemed that these students were not counted in the 15:1 pupil teacher classroom ratio, as the classes were 15:1 plus a small number of special education students. Mrs. Felton told of the following circumstances:

We have 18 [students in my class]. And you know two of them with special needs. And granted, Mrs. Hoover [Title I] is my support for the morning and Mrs. Star [Special Education] will be in here while they are part of my room. But still it's supposed to be 1 to 15.

Other Montford teachers were also concerned about bridging special and general education. Mrs. Bronkowski and Mrs. Monroe, team teachers in a core SAGE classroom, were constantly negotiating the challenges of meeting all students' needs, acquiring special services for students, consulting with specialists and parents, accommodating specialists' needs for space and meeting their recommendations (at times) for a calm and intimate learning environment for students. Mrs. Bronkowski and Mrs. Monroe discussed the ideal number of students they could accommodate and meet their building's SAGE goals for student progress:

Mrs. Bronkowski: Okay, [my gold standard in class size reduction] would be if I could work with a teacher all day, [but not with a 30:2 pupil teacher ratio]. Just morning, I would say 22 kids tops... . Once it gets up to 25 it just gets tough as far as like our reading goal is 85% of our students will pass the grade level benchmark so 25 kids were unable to do our reading groups to the full effect that they're meant to be. Because our time is cut short because there's only two of us.

Mrs. Monroe: If you have 30:2, I think that's way too large of a classroom. I think specialists have issues with that and then also just try to kind of meet everybody's needs. That is a big group of kids.
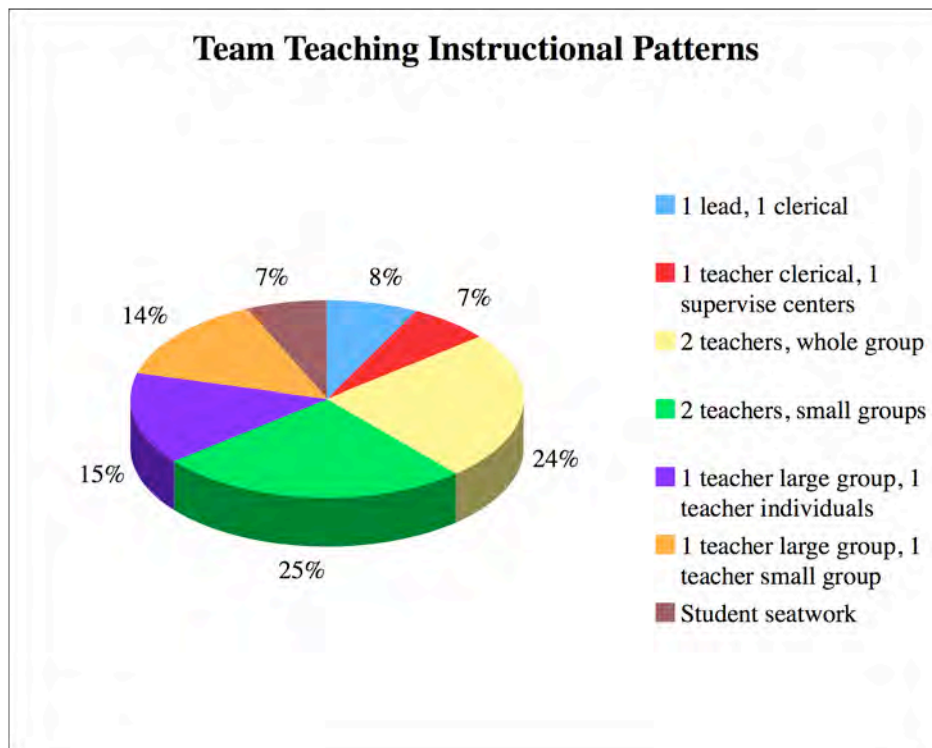
Linda Trainer described the complexities of organizing multiple supports for students with special needs. While Mrs. Trainer's number of special education students did not push her enrollment over 15 pupils, her case illustrates the sheer number of adults a classroom teacher sometimes coordinates with:

I have an assistant during the week. And some days I have him twice a day for like a half-hour at a time, some days I don't see him at all ... and then all the other days it's at least once for a half-hour... . I have a speech pathologist here and I have two students in speech and probably two to three more that are going to qualify. I have an OT resource person that is coming to work with a student who needs some help. And then I have an LD resource teacher that is helping me ... a half hour every morning and two 45-minute sessions twice a week in the afternoon, helping me with another student... . Then we have a psychologist who's been very helpful because of my student with autism.

While the EoY report states that special education students shifting from self-contained classrooms to general education settings affects SAGE pupil teacher ratios, interview data suggest that it would be of benefit to investigate further the distribution of human resources and implications for scheduling, curriculum, and instruction within SAGE settings. Further, English Language Learner support, Title I, and general paraprofessional support need to be better understood within SAGE classrooms.

Class Size Reduction Pillar and Teaching Practice

Fieldwork conducted in 2004-5 indicated that team taught classrooms often had only one teacher involved in instruction. This trend is mirrored in the Teacher Survey data which revealed that instructional involvement by both 30:2 teaching partners and productive small group and individualized instruction could potentially be improved in SAGE classrooms.

Figure 3. **Team Teaching Instructional Patterns (n= 29).**

As illustrated in Figure 3, teacher survey respondents in 30:2 classrooms indicated that both teachers were involved in instruction 75% of the time. This leaves a full quarter of instructional time when one teacher is working with a large group. Our analysis explored how teachers used instructional time in team taught contexts through discussion of tag-team teaching, instructional focus, teachers' perspectives on alternatives to 15:1, time, grouping for instruction, and classroom management. Observational and interview data provided a fuller picture of these areas.

Tag team teaching. Gloria Howard was well aware of what has been reported to the public about SAGE and how 30:2 team teaching had been implemented as a "tag-teaming" situation within her own school. In tag teaming, one teacher would lead the group while the other would engage in clerical tasks:

> Well, I think 15 is nice. The problem is I've read in the paper they've gone beyond 15, right? That was in the paper this weekend... . I honestly think when you have 30:2 or 25:2, what I've seen is SAGE is not being used correctly. What I've seen ... is I see one teacher teaching and another teacher sitting at their desk. And the other teacher should be at least helping. Do you know what I mean? So the 30:2 component isn't the best. But with building size now we're going to have more of that next year. Because they have to combine classes for 30:2. If the instruction doesn't consist of both teachers up and moving around, I don't know how valuable it is.

Mrs. Trainer was also aware of tag teaming and discussed how Ms. Collier, the administrator, had made known her expectations for more engaged team teaching practice:

And Ms. Collier never wants to walk into a SAGE classroom where there's two teachers and one teacher is teaching and the other teacher is not teaching. And by not teaching, I'm not saying that one of you couldn't teach social studies and one science. She would not want to come in and find you at your desk doing something. And sometimes that happens. That happens a lot in schools I'm sure. But that is not what the expectation is when you have two teachers in the room.

Instructional focus. Some participants framed instruction broadly to include communicating with families or checking in with students about personal issues that affect learning. Mrs. Monroe and Mrs. Bronkowski, core programming team teachers, discussed the importance of having time to make parent phone calls while one teacher took the class. This time, they felt, was well spent in their classroom, especially with many students with special needs:

Mrs. Bronkowski: I like teaming but with a lower number of kids.

Mrs. Monroe: I agree. Because then it's so nice to be able to get stuff done when you've got two teachers. And one can be working with one student, or one can be making a phone call to a parent or there's so many things that we do in tandem that's so crucial. If we only had 15:1 that would put a lot of pressure on one teacher.

Farmington principal Ms. Paley reiterated that the attention to social and emotional, as well as academic needs that class size reduction affords is an urgent concern in today's world:

In a high poverty area such as ours with a lot of struggles families have, the dysfunction that they have, having a teacher who can have some time for you [is important]. You might be struggling, things might not have been so hot at home, and someone who can really sit down and say, "How are you doing today?" Or I notice you're feeling sad. First of all if you've got 26 kids by yourself you might not have even noticed that. Or if you did you probably only have a moment or two to spare. So I think it's a huge academic help but I also think the whole child, that social-emotional, is huge.

Teachers' perspectives on alternatives to 15:1. Teachers who have worked in multiple SAGE configurations over the years were in unique positions to speak to the advantages and disadvantages of different experiences. Mrs. Felton spoke favorably of her past experience as a SAGE team teacher, highlighting potential pros:

I started off in a classroom of 2 teachers with 24 students. And the advantage is that you never lose instructional time. Because you always have the other teacher that can take a small group. Or can work with the kids that aren't quite getting it. Or that type of thing. So that, you know like right now there's a discipline problem, I've got to stop what I'm doing, take care of that, and that takes away from instructional time. Whereas when you've got two people in the classroom you've got instructional time, the other person can take a small group and do something different. Can remove a discipline problem ... that type of thing.

Lauren Rich, a grade 2-3 teacher at Earhart who had been a part-time core programming teacher discussed her personal struggles with trying to find her feet as a full-fledged professional within a team teaching structure:

I really like full SAGE rather than [core programming]. I've taught both.... . You have more of a sense of ownership of your class [with 15:1]. I never felt like I had a class

when I was a SAGE pullout teacher... . I mean another teacher would refer to the kids I'd taught, she would call them *her* kids. Even though I had them half the day... . I felt kind of, not inferior but just not as much part of the team. Really was sort of a floater.

Time. Lack of time to plan, collaborate, and cover the breadth of subject matter expected with a satisfying degree of creativity and depth was a recurrent theme throughout our discussions with teachers and, to some degree, administrators. Further, we observed strongly prepared lessons and thoughtful scheduling and supports, as well as the extreme opposite, and a range of practices in between. Teaching quality varied between schools but also within schools, and there often seemed to be a link between good planning and organization and skillful instruction. Michaela Pate, a 15:1 second grade teacher at Wellstone Boulevard, a low-performing school in Mallard District, described why instruction in her school was short-changed:

We don't have art, we don't have music, we don't have gym. So I do all of that. Everything. The only thing, like last year we had a music teacher but we had to stay in the room, that's why I said we haven't had release time. Since I've been here we've never had release time... . My next door neighbor works at a school [also in Mallard District] where they have two-and-a-half hours of release time... . they have all those specialists, right? You know they get to meet, plan, and I'm taking all that stuff home on the weekend because I have to sit down by myself and plan everything. It's not that teachers aren't willing to meet on their own time because we do, but it's hard to do that outside of work when you have other obligations.

Within the same district schools had vastly different access to time for preparation. Across town at rapidly improving Calloway, principal Ms. Collier had structured their budget to maintain specialists, freeing her staff up to plan and prepare:

I think more time for collaboration among staff members [is needed]... . And we've tried to come up with ways in which there could be more collaboration but we have ... well, we only have so many specialists. And when we have specialists, that gives teachers an opportunity to work together. And so we just don't have a lot of time. But we kept our specialists... .We try to hang on to ours. But sometimes it's a little difficult.

Brenda Blackton, a 15:1 kindergarten teacher at McMahon Elementary in semi-urban Bellamy District spoke of the connection between increasing academic expectations, adoption of new curriculum, and the need for time for personal planning as well as collaboration.
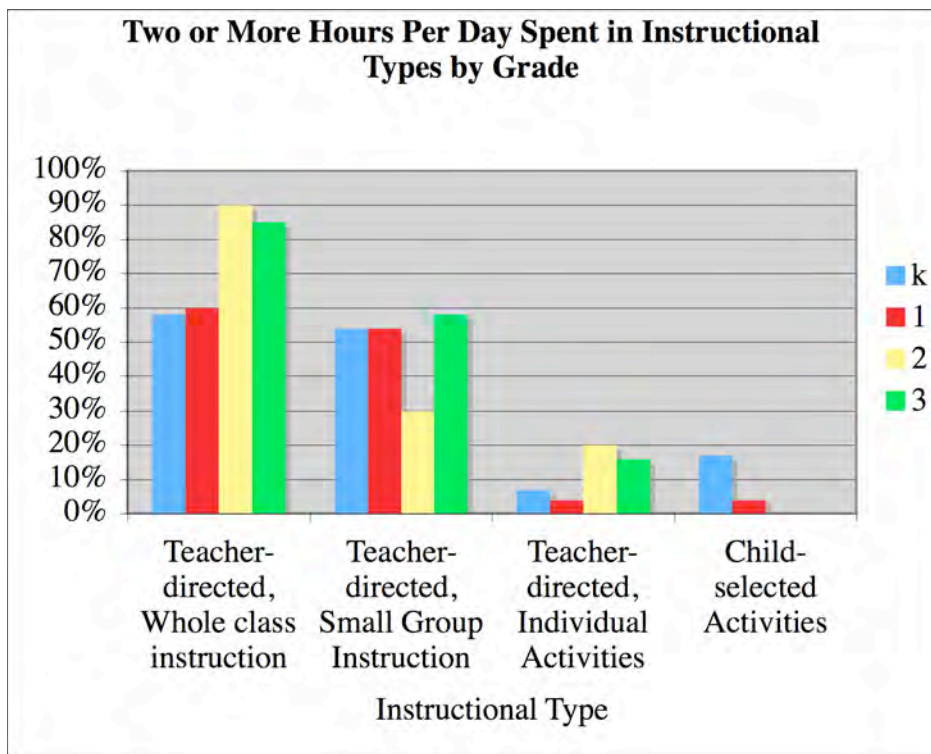
Time is always so important... time just for planning. Time to prepare. I mean I spend, I'm here most nights until almost six... . I come on weekends but I feel because I'm still learning the new curriculum and I think [our principal] said, I think he said just yesterday that materials I used to teach in second grade I'm now teaching in kindergarten… . But I think if they could do anything it would be time. We do have Wednesday afternoons once a month but that's for seminars and for curriculum.

Many respondents described how budget cuts and loss of special classes diminished opportunities teachers had to design instruction, reflect on practice, discuss assessment data with peers, communicate with families, and address individual children's academic and socio-emotional strengths and needs.

Grouping for Instruction

The Teacher Survey results revealed that teachers most often used whole group instructional practices. More than 66% of teachers responded that they utilized whole group instruction two or more hours per day and many teachers used whole class instruction three or more hours per day.

Whole class instruction was linked to grade level, with the practice most common at the second and third grade. Rapidly improving schools were least likely to use whole class formats heavily. While whole group instruction has important uses, small group and individualized instruction are found to be attributes of strong teaching in class size reduction research (see, for example, Blatchford, 2003; Zahorik et al., 2003) and in more general research on instruction (see, for example, Rimm-Kaufman, La Paro, Downer, & Pianta, 2005). Figure 4 illustrates how teachers described their grouping practices by grade level on the Teacher Survey.

Figure 4. Two or More Hours Per Day Spent in Instructional Types by Grade (n=100).

In teachers' and administrators' discussions of SAGE practice, it was interesting to look closely at the ways in which practitioners conceived of "small group instruction." For instance, some educators stated that SAGE provided a "small group" of about 15 students. In some teachers' minds, having 15 students *meant* small group instruction (compared to what would be provided in a larger class), justification for whole class instruction within SAGE classrooms.

Teaching opportunities and classroom management. Teachers spoke often about the ease that SAGE provided. A smaller number of students set up a context with fewer behavioral interventions and organizational concerns and more opportunities to engage in small group and individualized instruction. In addition they had less noise, more control and the ability to occupy

students not receiving instruction directly from the teacher. Several teachers, however, even with low teacher pupil ratios, found it difficult to teach effectively. Ms. Alice Krupnick, a 15:1 third grade teacher at low performing Gallows Elementary, was concerned about her ability to deliver quality instruction to the students. Though a veteran teacher with certain strengths, she struggled even though she had only eight students in her care during her observation. She stated:

> I think my biggest challenge is getting around the kids' behavior. And that to me is the biggest interference… in the last few years, it's been behaviors that I think have really been what's prevented me from being able to reach students.

Ms. Ellsworth, Ms. Krupnick's assistant principal at Gallows, felt that strong behavior management skills were a huge priority for teachers, particularly given that they were a Reading First school. This program, according to Ms. Ellsworth, required teachers to juggle multiple instructional groups while providing targeted reading instruction.

> [The 15:1 ratio supports] a teacher being able to work with two or say, four children at one time. While she's looking around to see what the other children are doing ... what students are doing in the centers. That would be hard to do if there were 25 or 30 kids in a class. And with Reading First they have the transition period so the children at the table are busy while the teacher is making sure they get settled. So you know a good teacher is teaching guided reading and the shared reading or the independent reading, and she has the ability to multi-task with 15, 16. You can't do that with 25, 30.

While teachers like Ms. Krupnick found management challenging, high quality classrooms had teachers who proactively planned and organized for instruction, shifting practice in response to students' needs and learning objectives. Tammy Helman, a teacher at Earhart Elementary, described the strategies she used to make the most of precious instructional time:

> Ms. Helman is describing the layout of her classroom and the logic behind her organization: "And if I'm doing group teaching or we're having some kind of community activity, this is probably where it's going to be. Because I feel like they listen and focus better here than they do if I'm trying to speak to them when they're at tables. Plus I want the things I need, like the teaching aids, to be nearby where they can see them. So when I do like the writing mini lessons it would be over here, or if I'm doing a read-aloud or introducing a math concept or playing a math game... . [On the carpet, I have kids sit in ways that are designed strategically.] At the beginning of the year, after the first couple of days, I made up a thing called Special Spots. Which is basically like a seating chart on the carpet. And I mean I guess what I'm thinking about when I do that is who has, who would be helped by being closer to me, who has trouble attending and or who do I need to be able to ... reach out and put a hand on a knee or something to get their attention.

Karen Martin and Nancy Giles, 30:2 kindergarten teachers, also were well-planned and proactive in thoughtfully organizing for instruction. Their ability to coordinate a fairly smooth-functioning classroom was aided by their ongoing negotiation of strategies and careful problem solving, tinkering to develop smooth and responsive routines, such as the implementation of small group learning centers:

> We try to position ourselves so that the [learning] stations that are going to need our attention are closest to us. And then a station that really we can just monitor by sight

might be working a little bit farther away but within our range to monitor. So yeah, the ratio is 15:1, we're each responsible for three groups or so.

It is—in part—these teachers' organizational expertise leveraging small group instruction that makes SAGE work in their classrooms. Future research should address the ways we can help SAGE work for more of the teachers like Ms. Krupnick who, in her willingness to improve her practice for the benefit of all of Wisconsin's students, is an untapped resource.

Lighted Schoolhouse

The SAGE law focuses on the importance of linking schools, their communities, and families through a component called the Lighted Schoolhouse. This element of the legislation is designed to broaden the resources available by supporting coordination of services and making the school a focal point of the community. The law has the following sub-pillars:

Education and human services:

> 1. Keep the school open every day from early in the morning until late in the day, as specified in the contract.

> 2. Collaborate with community organizations to make educational and recreational opportunities, as well as a variety of community and social services, available in the school to all school district residents.

Analysis of the EoY Report indicated that the median number of hours schools were open outside of the school day was about 45 minutes before school and about 3 hours after school. Schools were open for 3 weeks in the summer and a small number of hours on the weekend. The majority of student hours were focused on academic and recreational hours (each with more than 150 hours per year), while a much smaller amount of time was allocated to family and community activities such as school governance, family and community nights, and community recreation.

Participants in our project pointed to school-based and classroom-based approaches to connect families with the school. While these two are separate, they also relate to one another in the theory of action that motivate activities, the information they provide, and the social meanings they enact. Our discussion of the lighted schoolhouse will focus on these two types of activities, plus a third piece that shaped possibilities in our sample's SAGE schools, the resources required to implement home-school connections.

School-wide activities

School-based activities were offered in all nine schools in our 3-year sample and ranged from general activities that invited families to the school for celebrations to targeted activities designed to meet the needs of particular families. All of these activities were based on the idea that education must be a partnership that should be shared between home and school. The predominant orientation to this perspective was that the families should support the school; but more importantly, the school dictates the goals and activities for their interaction. This orientation can be seen in the comments of Marsha Delton, a third grade teacher at Calloway Elementary:

> We want to see parents and teachers as partners. We signed a contract in the beginning of the year just going over this is what Calloway School expects of your child and your family. This is what I as a teacher expect; this is what we expect from the child, this is what we expect from a family. It's an overview to say "We're all in this together, we need each other, I can't do this without your help. You were your child's first teacher. Now hand-in-hand we have to work together." I don't know that we have control over what goes on at home. We don't. So it's very difficult. I'm finding as I'm teaching longer it's just that there's a lot of needs out there and I think that parents are overwhelmed. Or they don't have, some parents don't have the wherewithal to even go over the homework.

Setting expectations for families was a key theme in our discussions. This translated into traditional forms of home school connection work to bring parents into the school to get information that will help them understand what is happening at school. These type of activities included open house, conferences, seasonal performances, and invitations to volunteer on behalf of the school. All nine schools engaged in these types of home school connections. Two schools provided what they called Lighted Schoolhouse activities, weekly open houses where families received a meal, access to the computer lab, gym, and library. Farmington and Montford, both rural schools, provided these services in areas where families were often unable to access these activities in town during the day. Both schools used funding from external grants to support these activities.

An additional form that was very popular was the content-oriented family night, where families were invited to school to engage in activities that taught them about literacy, math, or science. The following vignette, developed from field notes at rural Montford, illustrates the kind of activities and efforts required to support families and their learning about school.

<div align="center">Family Math at Montford Elementary</div>

In preparation for the 4th annual Montford Family Math Night, teacher Noreen Hoover organizes materials for the lighted schoolhouse program where families can take home five books and a special canvas bag if they sign a contract that spells out home-school expectations. Noreen already has the empty bags waiting to be filled as well as board games for families to play.

At 5:00 there is already a line for the event at the school. Mrs. Monroe is working at a desk handing out bags, a schedule, and a door prize form. Many families start out in the "Cooking with Math" room, staffed by a Boys & Girls club staff member. Standing by the "symmetrical sandwiches" table, the mother of a fourth grader seems uncertain but then she reads the directions. Noticing her hesitance, the teacher facilitating the activities tells them that they need to decorate only half of the slice of bread and then have a friend do the other half exactly the same – "a mirror image."

By 5:15 there are 9 children ranging in age from infant to teenager busily working there. The other activities in the room include:

- Making "refreshing proportional punch"
- Trail mix
- Candy Patterns

The trail mix table is mobbed with children and family members measuring out the ingredients with the measuring cups and then putting the mix into Ziploc bags. A grandmother begins a conversation about the peanut butter recall and the other mothers at the table ask for more information. The children are scooping up the goldfish, m&m's, pretzels and peanuts into the Ziploc bags.

(Outside of this room a mother complains to the principal that even the smell of peanuts can be bad for a child with a peanut allergy and that they shouldn't include them in any school activity. Principal Mrs. Durst listens thoughtfully.)

 "Play to Learn" is in one of the early childhood classrooms down the hall. This room is always available during family night events but tonight it focuses on math. There are

centers to make collages and beaded candy canes supervised by early childhood teachers and kindergarten teachers.

In the gym there is a "Dance Dance Revolution" game where participants match their foot movements to directions on a screen. Sensors in dance mats scores the level of accuracy. There are also several other "Moving with Math" activities:

- Basketball Madness (Mix and match the two drills to accumulate as many points as possible for 3 minutes)

- Hula Hoop Addition (Each person gets three opportunities to get as many revolutions as they can)

- Jump Rope Race (How many jumps can you get in 3 minutes)

- Hoopla Fun (How many points can you get in 10 throws)

- Bowling Bonanza (How many pins can you knock down in 5 rolls)

At 6:00 there is an announcement that pizza is available in the cafeteria.

There is a long line for the pizza but folks are in a cheerful mood and the line moves relatively quickly. Two women from the Boys and Girls Club serve and they smile and chat with families as they get their food. Dinner is a choice of pizza, bread sticks, raw veggies and juice boxes.

In the cafeteria families can also choose from a selection of math games on a table. And throughout the event there was a raffle drawing with prizes – all with a math theme.

During the community supper, the principal moved around the room talking with families asking about their vision for the school. Responses included more focus on environmental issues, an emphasis on foreign languages, and more discussion of life skills in the classroom. One of the families suggest GED classes be held at the school.

These family nights focused on academic content were mentioned by all our participants but varied from an annual offering organized by families to monthly activities that were designed to address issues in the school's state testing results. The Montford Family Math Night was the most elaborate in its intents to connect families with the school by involving varied support groups – teachers, the Boys & Girls Clubs, parents; its integrated approach to curriculum (including physical exercise with math) its dedication of staff to organizing activities; and its data driven approach to home school relations. Staff collected data at each family night and provided information about family involvement in an attempt to change practices to be more welcoming to all families. Calloway organized its family nights in response to concerns about student performance on the WKCE – they designed monthly family meetings that illustrated some academic concept. Mrs. Howard, a first grade teacher, reported that the district math coach had told her that other types of home-school activities were a waste of time. Mrs. Delton, a third grade teacher at Calloway described the activities they had designed to address concerns about test scores:

In the past we've had family nights focused on math and writing because those are the scores that we had greatest need for. And so that's how we decided different themes. And so we focused on those nights like for math we came up with a strategy night-- how do kids come up with different strategies or your response, responding to questions. How

can kids write out their thinking? And helping parents understand what that looks like, what the expectations are, and trying to get them to understand why math seems so different from what they have experienced in the past.

And then for writing we just do a lot of practice with family writing and talking about stories that they discuss and then writing about that, and we've also focused on some of the writing nights on the writing process or different writing genres. And we did those things so that parents had a better idea of what writing looks like in the classroom as well as what the expectations were for students' writing. And that expectations were a lot different than what they were for us when we were in school. So the how that gets generated was basically from data, from WKCE, from district testing, from the SPS scores, and things like that.

The idea of teaching families about instructional content is important in extending knowledge into the home. However, the implementation had some catches to it. In focus group interviews held in these SAGE schools in 2005-6, several participants talked about how unrewarding these sessions were – that they often felt insulted by the teaching because the programs were not planned with family expertise in mind. Instead, they were designed with a supposition of what families needed to learn (see Graue & Oen, in press, for more information). In using student performance as the tool for designing family nights, activities may have missed the particular needs and interests of families who attended the activities. The second catch was that these programs were incredibly labor intensive – they required planning, development of material and human resources, engagement of families and of staff. It was seen as an add on—something that you did on top of your regular job and that often was left to volunteers to coordinate and run. This issue of resources will be discussed more fully later in this section.

Classroom activities

Individual teachers worked to connect families, to help them understand the expectations of the school and/or to build a relationship that would facilitate communication. Many of our participants discussed their efforts to invite families into the classroom:

The newsletter and then daily notes home with a good note or a needs improvement note. Phone calls. I do some things in the classroom. Kind of around holidays or things where parents can come in and help out with those kinds of things. And provide volunteer opportunities that way. (Gina Perry, Wellstone Blvd.)

I have a weekly newsletter that tells what we're doing and what's coming up and I take pictures and I implement that into it. And of course the pictures are not really, they're kind of grainy coming off the machine, but still they get to see it and it's instant feedback. Like right now we've had four parents, and one grandmother that came in to read a story for Dr. Seuss reading…. Just to let them know that they are welcome and please you can come anytime. Read a story, or if you have a project you want to share, that would be great. So I guess that's one sort of feedback, letting them know, yeah, please come in. The only thing is so many are both working. Mom and dad are both working. So to get time off is pretty hard. (Sarah Ayermeyer, West Canton)

Classroom activities focused primarily on communication – general newsletters designed to inform families of instructional themes, specific lessons or fieldtrips, to invite volunteers to work, either in the classroom or at home on school related tasks, and to supplement what

typically proves to be a trickle of information provided by students about the daily experience of schooling. A number of teachers described the challenge of getting parents into the classroom – because they worked and their schedules conflicted with classroom needs, because transportation was too expensive, because the parents had negative experiences with schools. Madeline Court of McMahon Elementary described this in terms of social stratification and its unique effects on school:

> I think a lot of our families did not have good school experiences themselves. And we have many parents who are working parents. So they're now just in their early 20's themselves. And they've got kids in kindergarten, first grade. They maybe didn't finish school. They didn't have a good experience in school, they weren't successful, and they didn't like it. And so they don't know how to support their child. Or they give negative comments, "Well I hated math." And so the kid picks up on that. And I'm not sure if there's anything we can do to change that. Because I think it's a plight in our country right now. I don't think it's just particularly in Bellamy [School District]. I think there's a gap that's developing. The educated and the uneducated. Those with secondary degrees are going this way, and those who are high school or less are going this way. And those who are less than high school –they're really becoming a separate class. And we have a lot of those families here. And so I think maybe one of the things that we can do for the parents and I don't know how we can hook them in, would be to offer them to get to know your school, get to know the curriculum, get to know what your kid is doing so that they can feel comfortable helping their children. Because I don't think they do.

Many of the efforts to link home and school were designed with this in mind – to forge a bond with reluctant families, to let them see that there was an open door to the classroom. The majority of teachers implemented these activities assuming that families needed to make connections to school; that reaching out would bring families to the school. A smaller number of teachers pondered turning the tables – that classroom connections needed to be organized from the families' perspectives. At Montford, the school started each year with Hopes & Dreams Conferences where families were encouraged to share their expectations with the school. Initially supported by a comprehensive school reform grant, these conferences provided stipends to staff of $30/hour to meet with families before their contracts began in August. This amount was reduced to $14/hour when the grant ran out and the principal was working to find alternative funding. This is how Mrs. Durst, Montford principal, described the goal of these meetings:

> I think the hardest part sometimes is we have to remember we're not here and they're there. We're equally educators for our kids. And that truthfully they have this wealth of knowledge that we will never have about their kids. So the whole idea of starting with the Hopes & Dreams Conferences. Where I'm not telling you what first grade is all about. I want to find out from you what your first graders are like so we can learn the information and a little bit of this is what we do in first grade too. But it's definitely the first teacher is going to tell us what they know about their kid.

By beginning the year by listening, many of the teachers at Montford felt that they were in a better position to suggest strategies that might work for families. Their suggestions were informed by their knowledge of family resources and needs and the seeds of a relationship had been planted.

The role of resources

A prominent theme in discussions of home school relations generally, or the lighted schoolhouse in particular, was the role played by resources in activating partnerships between home and school. As mentioned earlier, though participants recognized that education was too complex to be trusted to a single individual teacher, the system of schooling was still uncoordinated enough that anything that happened outside of the official school day between teacher and student was something that was tacked on to an already stressed organization. Resources were seen as the fuel for the SAGE engine – something that allowed good ideas and intentions to get translated to action. Participants talked about resources of three types: funding, personnel, and time. At its core, SAGE funding was seen as a resource for staffing smaller classes and was frequently insufficient for that purpose:

> Well the SAGE money, right there's not enough money beyond SAGE just to barely pay for the salaries and even then it's not covering all the salaries. So that's always a big concern... .So the level of funding is the same as it was when I came five years ago and yet salaries have gone up, insurance has gone up. So there really isn't any money beyond that to get my teachers covered. (Bill Post, principal, McMahon Elementary)

One of the biggest challenges in developing home-school partnerships was the cost. Virtually every school-based activity had a cost and in a period of budgetary retrenchment and increased focused on achievement, activities that linked home and school were often the first to be cut. Madeline Court, from McMahon described it this way:

> I know that we could really use a bigger budget; we've had to cut out evening programs because there's no money. We had to cut out the chili night. We had to cut out the math games night. We cut out the ice cream social. We've cut out almost all of our evening fun things. Because there's no money. We don't have money to buy the chili and the hot dogs. We don't even have money this year to have the kids' field trips paid for. We're going to have to have the parents dip into their pockets this year. Which we haven't had to do since I've been here. This is my ninth year. So money, money, money. Money is just huge. Our parents are very low income. Almost all of them. Money is what's behind it all.

She went on to describe how general budget cuts limited their ability to purchase materials that would help families understand the mathematics series used by the school or even to make copies of letters that would provide information that would allow families to give support for mathematics learning at home:

> Investigations [the district math program] has this hard cover book that can be given to the parents at home. So that they can look at what their kid is doing in school and understand it. It explains what we're doing in school so that they can help their child with their homework. And it's colorful, it's hardcover, it's interesting looking, it's inviting. Do you think we're going to be able to buy one for every family? Uh uh. It's not going to happen. So you know it comes down to dollars and cents.

> Even things like making copies of stuff to send home to the families. We've got these letters to send home with the Investigations. We're supposed to be doing a minimal amount of copying.

> But we have to copy everything. We have to copy all of the pages for math. We have to copy all of them if we send that home; I haven't even sent them home. You know? To

make all those copies. So it comes down to dollars and cents. It's too expensive to make the copies so the parents are missing out on this piece.

Other participants at McMahon noted that it was especially important to communicate with families about the new math program, as it was so very different from anything that they might have experiences in their own education. Without resources to do that kind of communication, there was a missing link in the home-school relationship.

Some participants imagined a future where districts made home school relationships a part of their mission and budget.

I think the school district itself has to focus more on parents and providing things for the parents. I think eventually that's going to have to play a part in their budgeting. And I don't think there's any type of budgeting for that right now. You know, they say – OK we'll give you SAGE, well you'll have smaller classrooms. I think probably it will need to be supported with some kind of stipend for the parents. To actually come in and taking parenting classes or here's a six week set of classes for you to take on the math program or a six week program on technology. I think it's going to have to reeducate parents about school. Because a lot of them missed out. They either dropped out or just didn't have good experiences or you know their lifestyle was just not conducive to learning and you know they just kind of got by, you know and got out, you know the best they could. But probably getting older and finding more challenges now, now that they have children, they are probably saying, "Well if I knew how to do this, I could help my child or if I knew how to you know use a computer or whatever I could do more for my child." But a lot of parents they just don't know. So I think eventually that will have to be part of the school. You know, just give the parents a room. Have it set up that the parents know well this is your space, you know we want you in here. When your child comes home to you we want you to be able to relate to whatever their issues are. If it takes educating you, let's educate you. If it takes educating you how to keep your child out of gangs or how to keep your child home at night or whatever the issue may be. (Crystal Stephens, Kindergarten, Bethany)

While many might think that paying parents to take classes is outside the reach of today's schools, the intentions of this suggestion are important to consider. In a systems orientation to home-school relations, the needs of all participants are taken into account. For many of the teachers in our sample, family needs are a key aspect of child needs. Lacking education resources at home, students are at a disadvantage. Finding ways to enhance student resources becomes an educational issue. A piece of this logic was in place in one of our schools, which had a parent room that had materials, space for families to meet and classes of all sorts. This was the exception rather than the rule but is an example of the intent of the Lighted Schoolhouse where the school becomes a kind of center for the community.

Staffing. A number of participants felt that they could use additional personnel to facilitate links between home and school. Individual teachers often felt that they did not have time or expertise to do this kind of work and they valued additional support. Some schools had such staffing in the past, others only dreamed of this kind of resource. Darren Delmar, second grade teacher at Farmington, missed the support provided by the school's home school liaison:

We used to have in our building a home/school liaison. But that position was cut. She was great, because she knew all the families and you could talk to her. But she's gone.

> We have a district wide one now and she'd be the one we talk to but it's very difficult. I mean, she's servicing, what – seven schools? Thousands of kids. It's very hard and for you to get help is pretty impossible.

At McMahon Elementary, the principal used Title I funds to hire a home school coordinator who provides information to families through home visits and workshops. While this filled some needs, some staff would have preferred to have resources directly so that they could work with families rather than going through a third party. At other schools, participants mentioned that they could do a better job with families if they had access to more ESL or bilingual staff, a school nurse, and a guidance counselor.

Time. Having fewer students was thought to provide all kinds of time resources –more time for individualized instruction, more time for planning, more time to connect with fewer families. Some teachers used SAGE resources quite effectively for this purpose. Mrs. Monroe and Mrs. Bronkowski who team-taught ½ days organized their time together so that some time each day was devoted to family communication.

> Mrs. Monroe: And right away in the morning that's kind of Bridget's time to look through the folders, see if there's any issues from the night before that families are writing us and letting us know and that's when I can be the one saying okay make sure everybody is working quietly and you know just make sure everything is going as it should and that allows Bridget to do that parent contact too.

> Mrs. Bronkowski: Thank goodness there's two of us because otherwise I would be doing that in my prep and I don't have the time, which is only a half-an-hour by the time you walk the kids, get back do that. It's done. So that's just so helpful to have two people to do those kinds of things. (Montford)

This division of labor added families into the instructional time used in this classroom. Other participants felt a lack of time keenly in their practice of working with families. This was especially difficult in a budget-cutting era when some teachers were losing all discretionary non-instructional time. June Allenton, a second grade teacher at Gallows talked about how, as the old saying tells us, time is money. She felt her work with families getting squeezed out as she lost planning time and took up other duties:

> I try to do everything I can. I try to communicate, I could use more time to make more positive phone calls. I don't always do that as much as I'd like to. My job is getting harder because I have so much more to do because of the budget cuts. If I had more time to do that, more phone calls. I also think it would be really good if I could get some time freed up where I could go to the parents' houses. I have done that against the advice of my administration and the union. But I go to parents' houses and it's been very positive. Kids are very impressed that I would take the time to go and see them at their home. And it's amazing what you learn about a child in just those five minutes at their house. I think it's very, very empowering.

> It costs money to do everything. With our money being cut, our resources are being cut, it's harder, it's more taxing on our time, it's harder for us to reach out to the parent. Especially the parents that don't want, that think they don't want to have anything to do with us. We need to be more welcoming. We need to provide ways for parents to come into the school and meet with us and see what's going on and visit the classrooms. And

we need more money for that... .Next year we're having some of our specials cut. We've lost our art teacher, we've lost music teacher I think full time. So we've had three specials and we're cut down to one. Yes, so that's going to cut into our collaborative planning time and our ability to keep up with the demands of our job. And that's going to make it harder for us to reach out to parents. I think it's important, but sometimes that's the last thing that happens because we have to do the paperwork and we have to grade the papers and we have to help the kids and sometimes that's the last thing and we're too tired.

Mrs. Allenton's comments highlight an important issue in our SAGE fieldwork over three years – that SAGE is implemented in a broader context that shapes what is possible. The ability for educators to extend their educational attention to families, families who need their care and interest in social, economic, and educational dimensions, is constrained by issues beyond the SAGE program. The fiscal environment in schools today has pared budgets down beyond the bone – teachers told us that there was no money for photocopying, no money for paper, no money for planning time, the list goes on and on. With fewer and fewer resources devoted to activities related to families and with growing concerns about the resources that families brought to school, SAGE educators felt pressed to offer more and more with less and less. And some just ran out of gas. There were only so many after school activities one could go to when you were exhausted. With a guilty look, this is what Mrs. Felton from Montford told us:

I don't know, to be real honest with you. There are some events that I choose to go to and some that I don't. I feel that, and I don't go to every one because I have a life too. (laughs). . .my children are old, I have a senior in high school and my son is in college, but I still have things that I'm interested in outside of school so that you know if my night is open then I will go over and if it's not, then I've got my life too…(Montford)

Building relationships with families is a time consuming and energy intensive process. It requires information about what families have and what they need, it requires human resources to invest their time in creating activities that connect the school and home, it is facilitated through funding that supports staff working outside of their contract day and for incentives or materials for families. And to do it well, you can't rest on your laurels – you take stock of your most recent activity, go back to the drawing board and design something even better next time. Future research should address the diverse resources required to construct meaningful home-school relationships, including time, staffing, needs assessment, and alignment with curriculum.

Rigorous Curriculum

Measures of Quality in SAGE Schools

The SAGE law underlines the importance of a solid academic curriculum in school improvement. There are three sub-pillars within the *Curriculum* pillar of the SAGE law. SAGE schools are to:

1. Provide a rigorous academic curriculum designed to improve pupil academic achievement.

2. In consultation with the department and with the participation of the school's teachers and administrators and school district residents, review the school's current curriculum to determine how well it promotes pupil academic achievement.

3. If necessary, outline any changes to the curriculum to improve pupil academic achievement.

The adoption of specific curricula is a local decision, made in light of the needs and constraints of the individual settings and then interpreted and implemented at the school and classroom levels in response to the students' strengths and needs. For this reason, we conceptualize rigorous curriculum at the point of its interpretation and implementation. In other words, to understand how rigorous curriculum works in practice, we must look beyond the scope and sequence of particular texts and programs. We must understand how the chosen curricula are put into motion by teachers within schools and districts with the particular resources and in response to particular students. We must understand *quality* within classrooms.

To accomplish this task, we needed to find a tool to measure quality across a range of settings and provide a standard that would allow us to compare diverse classrooms and schools. As described earlier in this report (see 2006-7 Research Design, Data Collection & Analysis), we found that tool in the Classroom Assessment Scoring System (CLASS). CLASS is unique in its focus on diverse measures of classroom quality. CLASS assesses the supports for student learning that include teacher strategies and classroom organization as well as the responses of students in those contexts. It explores the social, academic, and organizational tools that leverage learning. We begin by examining how the quality ratings of SAGE classrooms compare to the norms established in CLASS's development.

Table 5 presents the average CLASS ratings for the total sample compared to the instrument's norms. In each case, the ratings along CLASS dimensions and domains are *higher* in SAGE classrooms than in the norm sample, with few classrooms rated in the low range. A descriptive look at this table points to slightly elevated ratings which, given our research design, cannot be directly linked to SAGE's influence because we do not have data from comparable non-SAGE classrooms. However, that being said, only seven classrooms (26%) were rated below the CLASS average for their grade levels.

Table 5

Mean Class/Domain Scores for Sample SAGE Schools & CLASS Empirical Sample[9]

CLASS Dimension[10]	SAGE Sample n=27		CLASS K n=730		CLASS 1-5 (Responsive Classroom) n=88		CLASS Grade 3 n=82	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Positive Climate	5.49	1.2	5.14	NR	4.91	.93	4.44	1.17
Negative Climate**	1.48	.56	1.55	.65	1.35	.65	2.22	1.16
Teacher Sensitivity	5.03	1.34	4.64	.86	4.74	1.01	4.60	1.10
Regard for Student Perspectives	4.67	1.22	NR		NR		4.28	1.08
Behavior Management	5.36	1.17	5.18	.79	5.14	.95	4.98	1.29
Productivity	5.65	1.09	4.67	.73	4.98	1.00	4.69	1.14
Instructional Learning Formats	4.95	1.12	4.11	.84	4.23	.73	4.21	1.22
Concept Development	4.35	1.13	2.11	.74	3.82	1.01	3.84	1.32
Quality of Feedback	4.35	1.12	1.84	.64	4.77	1.03	3.54	1.31
Language Modeling	4.32	1.04	NR		NR			
Domains								
Student Engagement	5.46		NR		NR		4.64	
Emotional Support	5.43		5.41[11]		5.92		4.78	
Classroom Organization	5.32		4.65		5.06		4.63	
Instructional Support	4.34		1.98		3.26		3.69	
Average CLASS SCORE	5.10		4.27		4.74		4.50	

[9] As reported in the Technical Appendix of the CLASS, Table A.1. (Pianta, LaParo, & Hamre, 2008a, p. 97).

[10] Maximum score in each category = 7, Minimum score = 1. In all categories **EXCEPT Negative Climate, a higher score is a more positive outcome.

[11] Domain & averages calculated from dimension results.

Classroom Quality by SAGE Configuration

We were also interested in how SAGE configurations set a context for classroom processes. Our analyses of quality by configuration are presented in Figure 5 and Table 6.

Patterns are difficult to discern here with wide variation within any grouping. No one configuration is clearly superior in terms of CLASS rating, indicating that the structural variable of group size is limited in its ability to depict classroom quality. The unequal cell sizes and wide variability paired with lack of configuration pattern imply that a more qualitative approach to understanding could be useful. It is here that the interviews and observations can help us understand more about context and process. SAGE does not exist in a vacuum and its implementation is connected in myriad ways to all other aspects of schooling.

Although both Figure 5 (variance within SAGE configuration) and Table 6 (the average quality by SAGE configuration) tell a kind of story, adding the insight from fieldwork helps enrich this picture. In the section that follows, we contrast practice at the classroom level, with comparisons of moderate and high quality in pairs of team teaching and 15:1 configurations. Our analyses are deliberately comparative, designed to show the *variation* in quality in different class size reduction contexts that would be missed by the typical structural analyses. This variation is important because it illustrates the range of quality within classrooms.
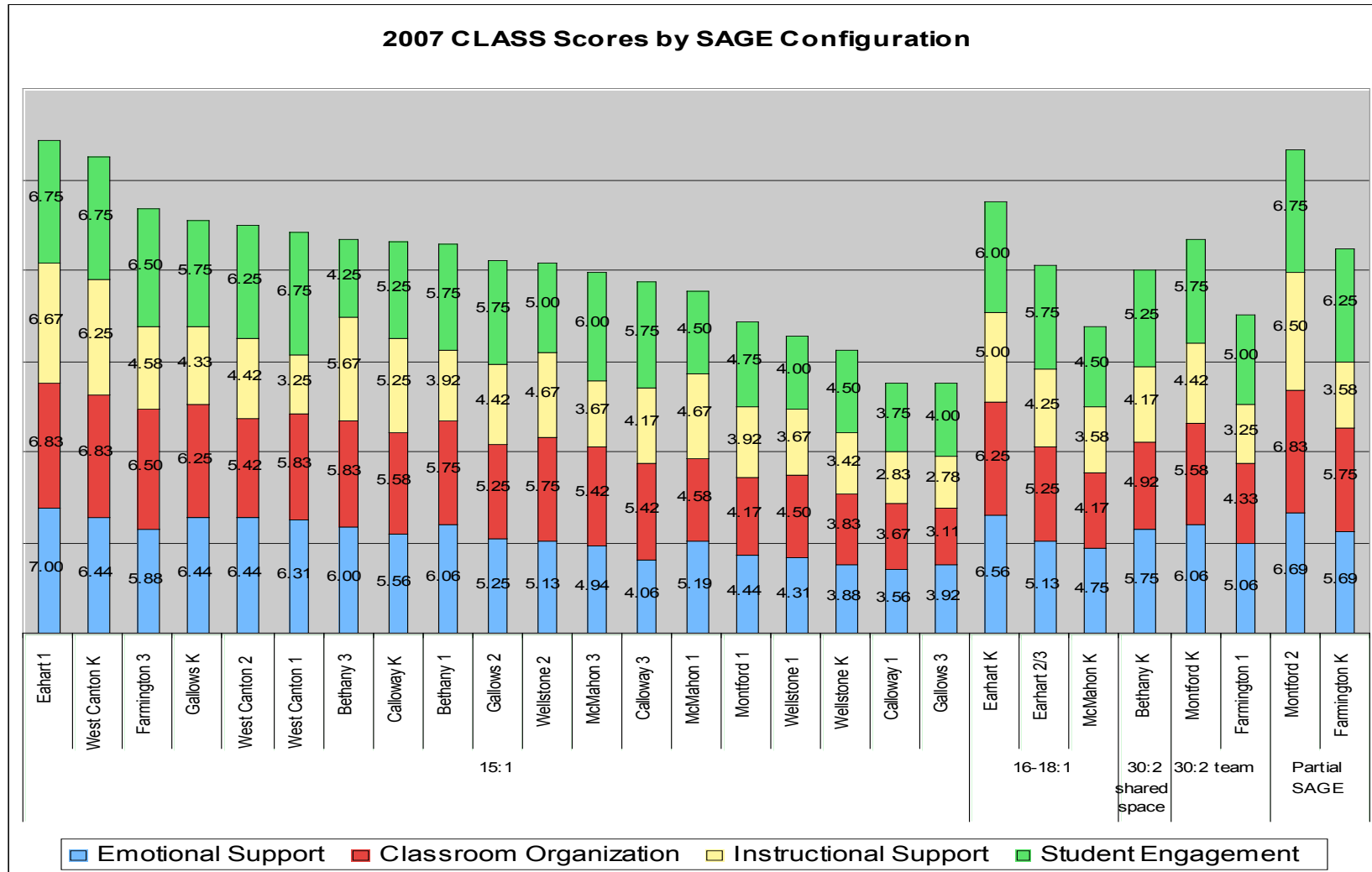
Figure 5. **CLASS scores for individual classrooms by SAGE configuration.**

Table 6

CLASS Ratings by SAGE Configuration

Configuration	Emotional Support Mean SD	Classroom Organization Mean SD	Instructional Support Mean SD	Student Engagement Mean SD	CLASS Mean Mean SD
15:1 n=18	5.33 1.06	5.33 1.08	4.31 1.09	5.4 1.03	5.09 .95
16-17:1 n=4	5.89 .89	5.06 .91	4.46 .47	5.25 .74	5.02 .70
30:2 n=2	5.56 .71	4.96 .88	3.83 .82	5.38 .53	4.93 .74
30:2 Shared Space n=1	5.75 0	4.92 0	4.17 0	5.25 0	5.02 0
Core SAGE n=2	6.19 .71	6.29 .77	5.04 2.06	6.50 .35	6.01 .97

Profiles of Quality

To this point in the section we have examined aggregate patterns in CLASS ratings by markers like school achievement and class size. In this section we explore profiles of quality, contrasting composites of classroom practice and exploring their relation to the use of class size reduction in the SAGE program. We compare structurally like cases, describing classroom quality in both team taught and 15:1 classrooms.

Team teaching

Team-taught classroom configurations were utilized less out of professional preference than from administrative necessity. Lack of school space for 15:1 classrooms was the motivating factor in most 30:2 assignments. In the case of core SAGE, schools with fewer children eligible for free and reduced lunch chose to implement SAGE for part of the day. In most of the core SAGE classrooms, the teachers team taught, sharing instructional duties for a larger group of students. These class size reduction strategies were rarely seen as perfect solutions but were realities in the current climate and in some instances, as seen in Figure 5, have higher CLASS ratings than some classrooms where there are 15 students and 1 teacher only.

In this section we present two examples of team taught classrooms – one with consistent high quality and the other with midrange. The contrast has a nice symmetry as both schools serve rural communities and have limited building space so they need to double up some teachers. Administratively, they are quite different. Farmington has a top-down leadership style[12], with the principal as a strong single decision-maker. In contrast Montford has a shared leadership culture in which teachers work with the principal to forge plans that will serve students well. Catherine Paley, the principal at Farmington, described her need for some team taught classrooms in this way:

> Well the main reasoning is space... . If we truly had enough classrooms we would do our best to have them all be 15 to 1... . However, I'm going to tell you my bias here. My understanding is that some of the research or maybe all of it shows 15 to 1 in, in one stand-alone classroom tends to have some better academic results. My own personal bias is that for some students, I think having two teachers in a classroom can really, really benefit them. Um, so of course there might be 25 children so it's technically 12-1/2 to 1 and it's not ... as pure as having that one teacher but I think there is something that two people can give you that one person cannot. In some respects I think there's kind of always somebody there that you can talk to. I also think if you can get teachers who complement each other in their styles and in their delivery I think that's good for kids.

Several teachers at Farmington looped with their students, taking them from one grade to another. Looping is favored for its relationship building and continuity but in the SAGE context it had some unintended consequences. With staffing that was not absolutely stable and the need to pair teachers at a grade level, teachers often found themselves with a new partner from year to year. This was the case for Dana Read, a first grade teacher who had looped from kindergarten to first grade. She was finding the current year difficult with a new partner:

> We're in a situation where I'm co-teaching with somebody completely different than I've ever co-taught with before. That's been a challenge just because we are polar opposites

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[12] This is based on three years of fieldwork in these contexts.

(laughs), ... but we've been able to make it work for us... . She's been actually able to take some of our lower end kids and really focus in on them and give them a really good solid small group, one-on-one sort of thing. So she pulls them out quite a bit of time... . [This year's challenge would be] team teaching with somebody completely different because of our funding issues, I have taught with a different person <u>every year</u> for the past four years.

Mrs. Read and her partner Mrs. Prange taught 22 first graders in a bright, cheerful space stocked with open shelves of books and manipulatives and low tables and chairs which seemed to invite collaborative work. The classroom practices were rated in the CLASS midrange, with higher emotional support and less instructional support (ES-5.06, CO-4.33, IS-3.25). The following example of practice illustrates the teaching represented in these ratings:[13]

> "Good morning!" Mrs. Read, a veteran first grade teacher at Farmington Elementary School, called out to greet overwhelmingly smiling, happy, chatty individuals as they streamed and straggled into her team-taught first grade classroom. Several students come up to share with her the tales of a first wiggly tooth or a baby sister taking first steps or yummy chocolate chip Eggo waffles for breakfast. Mrs. Prange, a second teacher in the classroom took a back seat role, following up with a parent phone call and checking in with the 5 students in need of extra literacy support. Mrs. Prange pulled the 5 children out of the classroom to work during this time, leaving Mrs. Read in the classroom with 17 students for bulk of the morning.

> After Mrs. Prange and her group exited, it was time for a quick spelling test and then learning centers. When Mrs. Read announced centers, the class cheered. The literacy centers consisted of reading big books, "collecting" words around the room and writing them on clip boards, a partner dice game to practice sight word recognition, and editing bear stories with Mrs. Read. The students' engagement in these activities varied. At the big book center, children were sometimes off task, building structures with the books themselves and Kleenexes rather than reading. Word "collectors" donned sunglasses and actively searched the room for words. With an odd number of students at the partner game center a threesome started arguing about who would be in and out of the play and the game was stalled. Meanwhile, Mrs. Read was focused on the students who were with her and provided mainly correctness-oriented feedback that allowed for limited dialogue between teacher and student:

> "I like how you're sitting on your bottom."

> "Check to see—do you have seven sentences in this story? That's what I'm looking for."

> "Does that sentence make any sense? Maybe you should erase it."

> "You did exactly what we practiced."

> And then the timer went off and Mrs. Read announced, "Writing Center, I know you're not finished, but we need to move to the next center. I'll count to 10 backward and you'll need to be sitting at your next center... ."

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[13] These examples come from field notes. They are not intended to be used for coding purposes but to illustrate, in broad strokes, how classroom quality plays out in SAGE classrooms.

Practice in this classroom was typical of most early childhood settings nationwide—fairly positive and nurturing yet lacking the consistent back-and-forth academic interactions that scaffold student development (Wilson et al., 2007). In this case, clear behavioral guidelines were not set immediately before the lesson and it was difficult for the teacher to consistently monitor and guide peer relations while she worked with her small group, detracting from the learning potential of some of the activities. Mrs. Read was attuned to time. She engaged the class in inventive and efficient transitions between activities and ensured that each child would visit every center that morning. On the other hand, limited time at each center compromised the deep engagement that teacher-student investment in learning activities can bring.

High quality practice occurs in a context where strong student-teacher relationships are paired with specificity of instruction relative to student need—where teachers have the latitude, and capacity to calibrate their actions in response to both group and individual understandings. When Mrs. Read talked about how they targeted instruction in her classroom, her focus was on the results of state-wide grade 3 testing and grade level standards:

> We started out by looking out where our scores were at based on state testing. And figured out what our weakness areas were. And then you know we really focused in on those areas that are weak for us. Like writing was really, really weak for us. And we're starting to see some of those gains in our testing. And then math was a really big weakness for the school district. So we're starting now in the third and fourth grade testing, we're starting to see that growth now. So I think that's useful then to target things and work on them... . My personal goal ... [is] that my kids leave here working at or very close to grade level... . I also hope it meets the goal and the need to make sure kids feel comfortable and safe and excited about learning at school. For me it's all about relationship building with my kids because for me, if I don't have the relationship with them they're not going to want to do the things that I ask them to do.

This quote is a window on midrange quality practice – there is evidence of teacher goal setting, of interest in relationships with students. What we miss is attention to specificity—of particular goals for particular students and their needs.

In contrast, the 2nd grade teachers at Montford, who taught a core SAGE section, functioned as a fully engaged team. This was a focus for their school, spearheaded by Mary Durst, their principal – using SAGE to fully meet the needs of students:

> [W]hat I always want to know is are we using the teachers to best meet the needs of the kids? ... And I feel almost always confident in that we're using that as a decision maker. But once in awhile there's a sense, is SAGE to help the teacher or to help the child? And then we'll just get into those conversations... . And SAGE doesn't *always* mean 15 to 1. It might mean 24 to 1 and 1 to 1, you know if there's two people in there... . If one-to-one best meets that child's needs and you can still meet the needs of the rest of the 24 you do that too. But what you don't want it to be is 25 to 1 and one sitting in the teacher's lounge or something like that.

In contrast to the teachers at Farmington, who looked to the state test for guidance, teachers at Montford had a fluid approach to assessment that included state tests, school level pre-and post assessments, and grade level assessments that were collaboratively designed over time. Dina Monroe facilitated much of the assessment work. Mrs. Monroe worked halftime as a SAGE second grade co-teacher and half time as a professional development coordinator and

coach for the school. She managed data for her colleagues, providing them with links between student assessments and strategies for instruction based on joint consideration of goals and student needs. The assessment work was built on the school wide collaborative model, which valued teachers working together to understand student needs:

> One thing that we've really tried to do is have built-in time to analyze the data, at the beginning of the year when we have a window, like a two-week window where they can take and give their pre-assessment, and then the next collaborative grade level session … they have a half-day... . You need to give teachers that time to do those things, and then also to analyze that information.

Dina Monroe and Bridget Bronkowski had been teaching together for five years. Over this time they had developed a strong curricular base, strategies for maximizing instruction, and a keen sense of professional respect.

> Mrs. Monroe: For differentiation I think we've really used that grouping strategy then. So the kids that we know either by pre-testing them or by morning work … which kids are going to be struggling with certain things. So then if we know what's coming whoever is not lead teaching the lesson will say, "Okay do you want me to pull small groups?" ... So that's when we'll use the back table and utilize small groups that way.

> Mrs. Bronkowski: We teach every other unit and then we've been doing the same units I guess the past five years we've been together. So we really know that unit and we know what works and we know what we can add in. And we know according to the class how we do need to differentiate. You know, a certain lesson or a certain unit. And just knowing that unit so well. We are able to also know our students and [I can say,] "Okay, Dina, I'm going to need you to take these three, four kids ... and really go over this again." Because even though there's spiraling there still are some concepts even though it's not expected mastery we know which ones … really are struggling. And we really want them to … have a strong base with it. And know as much as they can so then we let the other teacher know and then we do small groups.

The work of these two teachers was observed over 2 school years and was rated using CLASS. It was an example of a classroom with high levels across domains with nurturing, emotionally supportive, well run and student tuned practice (ES-6.69, CO-6.83, IS-6.50). While the team provided strong complementary support to the students across whole group lessons, they also consistently broke into small flexible groups guided by instructional purposes and student needs. As Mrs. Monroe worked with small groups of students in literacy instruction in the nearby computer lab, her teaching partner Mrs. Bronkowski simultaneously provided guided reading instruction to small groups in the classroom, with quite parallel levels of emotional and instructional responsiveness and similar attention to detail. The remainder of the class of 24 students worked at their seats doing independent activities during this time. Careful attention paid to behavior management early on laid the groundwork for teaching small groups with minimal interruptions and with meaningful learning taking place for everyone. When rated with CLASS, this classroom had consistently high quality scores across the array of grouping structures. The following example shows Mrs. Monroe attuned to student interests and questions, drawing numerous connections between the content and student resources:

> Charles and Emily are reading a book called *The Printing Machine*. Mrs. Monroe does an extended picture walk, asking lots of questions about the children's experiences with

writing and printing. Emily gets confused by the difference between printing and copying and Mrs. Monroe points out the copy machine in the classroom and then talks about the picture of the printing machine that is in the book... . Emily reads but misses several words. Mrs. Monroe asks her to re-read the text, making sure to read the words that are on the page. Emily reads the page again as Mrs. Monroe monitors carefully, cueing Emily to use her finger to point to each word as she reads.

A little while later, Mrs. Monroe has begun to work with the "big group." She excitedly tells them that they are on the last chapter ... "drum roll" she cheers as she drums a bit on the table top. She asks the group what the story was about and Matt and Dylan both tell about how Junie got new glasses but didn't want to wear them so she kept them in her pocket... . After more rich discussion linking the storyline and the students' experiences, Mrs. Monroe asks the children what they would share with a friend that would get *them* to read the book and asks them to write three "selling points.". Dylan asks if they can write down more than three and Mrs. Monroe tells him that it would "knock her socks off." She gets the children started.

While *The Printing Machine* and *Junie B. Jones* groups continue focused independent literacy work, Mrs. Monroe moves to a third small reading group. These students are discussing *Orphan Train Home*. Mrs. Monroe asks what the connection is between this story and *Abuelo* in the anthology. Tanner says that both were about traveling. "Hum… who is telling the story in the orphan train?" asks Mrs. Monroe. Hope says "grandmother" and then realizes that both stories were told by grandmothers. She asks what an orphan is and Hope says it is someone whose parents can't take care of you or they die. Other students talk about their understandings of 'orphan.' Mrs. Monroe then introduces the questions the students will answer independently, for instance, How would you feel if you were sent on the Orphan Train?

Children's learning is fostered in this classroom by joining the academic content specified in the curriculum and the experiential content of the children's lives. Classroom practice in this room is contingent on both and, as a result, more relevant to the students. This is possible in a context of a school with shared leadership that builds on the expertise of staff, while building capacity to meet the needs of individual children and families. The school-wide use of Responsive Classroom promotes a structural support for an asset-based approach to teaching and relationship building. A commitment to maintaining functioning teams gives a stability that deepens the tools that teams bring to instruction.

15:1 in practice

These two 15:1 classrooms from schools that would be seen as quite similar – on the small to mid size, with similar student achievement, performing better than expected on state tests. We focus closely on classroom practices, contrasting the work of Calloway's Gloria Howard and Earhart's Tammy Helman to illustrate a continuum from partial to full use of strategies that connect quality and the resource of class size reduction.

Ratings of practice in Gloria Howard's classroom were in the low-mid range, showing a context that was emotionally, organizationally, and instructionally in need of improvement (ES - 3.56, CO-3.67, IS-2.83). She saw her small class of thirteen students as fraught with challenges:

> A lot of behavior problems. A lot of language issues, students don't understand English as well as they should. I know a little Spanish. Constant need to redirect five to six individuals. Specifically boys. Very time consuming. I have to correct off-task behavior. We have them, I have one [cognitively disabled] girl who needs a lot of extra help and I have no time to give it to her. She is out of the room now only an hour-and-a-half a day— that was reduced yesterday.

Throughout the year, Ms. Howard sought the assistance of her supervisor and colleagues to ameliorate these challenges, first by rearranging her classroom to quell behavior issues, and later by working with others to design activities to challenge her above grade-level students, who were often the source of class disruptions. However, by late April when CLASS was administered, difficulties remained.

The following examples are short, time-compressed descriptions of the lowest reading group in Mrs. Howard's class. Mrs. Howard uses the same text with all reading groups, varying the pacing of instruction rather than the content:

> Ms. Howard hands each of the students in the lowest level reading group a small book and asks them to open to <u>Seal Beach</u> on page 17. Ms. Howard asks them to put their fingers on the title and read slowly, "S-eee-l B-eee-ch" and asks, "What will this story be about?" After they make predictions and read the about the author section, Ms. Howard asks Max to start reading. Max begins, "Mom and I… (Ms. Howard: www) walked to the --- sea." (Ms. Howard: s-ea. That's a period.) The kids know from prior experience that they are supposed to take turns. Vicki reads, as Ms. Howard helps, "We take st… (Ms. Howard: steep) st (Ms. Howard: steep steps) that (Ms. Howard: l-eee) lead to the beach." Mrs. Howard tells Vicki that she did a good job on beach. Edwin is next, "We see…" as he pauses, Ms. Howard says, "Look at the picture Edwin, 'We see seeeels.'" Edwin finishes his turn by repeating the word "seals."

> Ms. Howard's attention is drawn away from the group. She redirects George, whose desk is next to the reading table. She calls on Nabil, who is raising his hand. Nabil mentions that he is finished with his seatwork (meaning he would like to go to centers) but Ms. Howard says that she needs to see his work first. Nabil brings his work to Ms. Howard. The kids in the reading group keep reading, but when they get stuck on a word they stop and wait for Ms. Howard to turn her attention back to the group. After looking at his work, Ms. Howard tells Nabil that he has to redo some of his handwriting paper.

Mrs. Howard's lowest level students depend on her input at almost every turn. The feedback provided to the students is primarily focused on decoding and whether answers are right or wrong. Nabil grabs the opportunity to interrupt, which takes away from the flow of the lesson and leaves classmates waiting for attention. The small class size provided by SAGE is limited in its potential in this teacher centered approach.

Tammy Helman's classroom of 13 first graders is a warm, productive space where children become writers over the course of the year. The CLASS ratings were high across the board, showing a context that was emotionally nurturing, well organized, and instructionally rich (ES-7.0, CO-6.83, IS-6.67). With a highly integrated literacy program that included both reading and writing, students develop dispositions that allow them to regulate their own behavior and to know how to find resources. When asked how she goes about developing literacy with her first graders, her response was illustrative of her approach:

I think my approach for even the kids who are struggling is not to turn it into a set of skills. At least I hope I don't do that. Because even for them I want *reading to be about making meaning*. But of course if you're reading a simple book there's not as much there to ... comprehend or things like that. So I think for the higher readers the focus is more on learning from the reading and more on the comprehension strategies whereas there is a heavier emphasis on decoding and how to go about doing that [with struggling students].

In the following example, we see this in action, as Ms. Helman works with Esme to make sense of a text during independent reading time. The morning routine begins with students reading on their own as Ms. Helman works through routines like attendance and lunch count.

Following Ms. Helman, Esme holds her book, pointing to a word. "Is this presented?"

Ms. Helman touches her arm gently and says, "Why don't you go back to your seat and see if that makes sense, I'll come read with you." Scanning the room of 13 first graders during independent reading time, Ms. Helman warmly says to the quietly working group, "I'd like to thank the people who are reading. Thank you Nancy, thank you Antoine, thank you Emily."

Ms. Helman squats down next to Esme and says, "Find the first part of this word – it's kind of like bee or me."

Esme crinkles her nose and says, "pre?"

"What about the rest of the word?"

"T—ended... pre-t-ended. . ..pretended?"

Ms. Helman cocks her head and looks closely at Esme, "Does that make sense? Why don't you read the whole sentence?"

"He pretended to be a jack-in-the-box."

"OK – does that make sense?" Esme nods yes. "If he is pretending to be a jack-in-the-box, what is he doing?" Esme seems stuck so Ms. Helman asks her if she knows about jack-in-the-boxes, mimes what you do with one and they chat a bit about the toy.

"Why don't you read a little bit more to me? Keep going... ." Esme reads quietly, fumbling a bit.

"Sometimes they did magic tricks wearing a sw----ir----ling swirling purple cap."

"Look at what she's wearing right here," Ms. Helman says pointing to the picture, "this purple thing. It is called a cape. *A swirling purple cape*. Do you know of any other characters you have seen who wear a cape? ... like a magician maybe?"

"I saw a black one of these on TV once."

Ms. Helman smiles at Esme and turns to Destiny who is juggling her breakfast tray, "Here Destiny, let me help you with that." Esme is back into her book reading happily.

This short example shows a language rich interaction between a teacher and an English language learner who is good at decoding but sometimes needs support with vocabulary. This kind of individualized instruction is possible because Ms. Helman's students have developed strategies for working on their own and for supporting each other so that she is not the source of all information. Ms. Helman uses the resource of class size reduction to its best end by strong
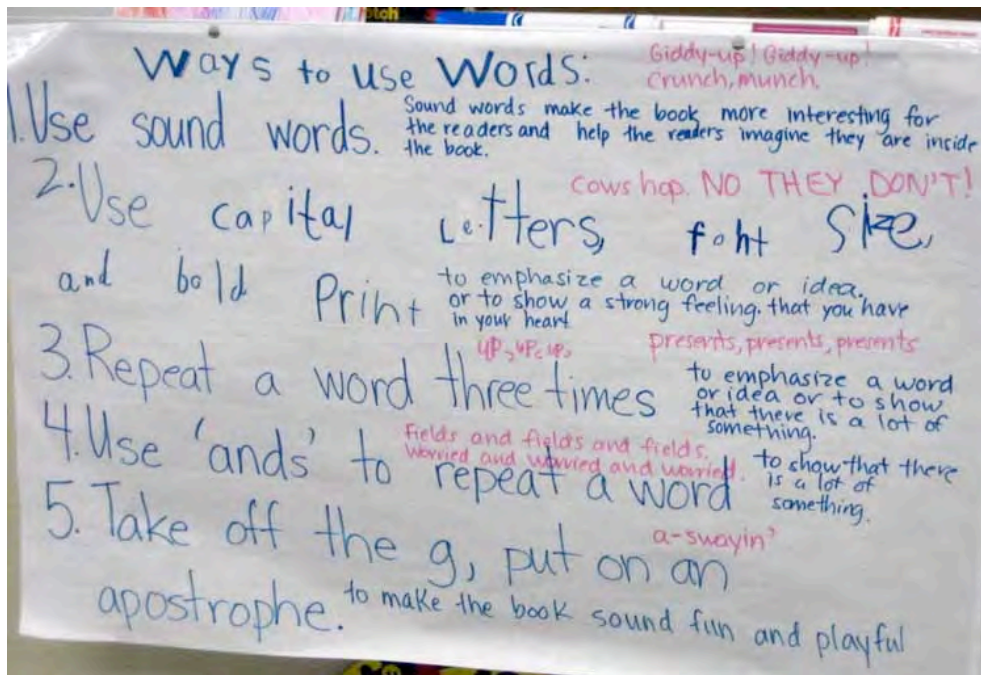
classroom organization that allows for a variety of instructional groupings, for a variety of instructional needs. A bit later that morning, Ms. Helman brings the group together for a morning meeting and they read a letter together.

"I have a letter I want to share with you and it says on the outside, 'Do not open until 5/27/07.' Today is 5/29 but we weren't here on the weekend for 5/27 so we can open it today. It is to all of us from our friend Wendy." Ms. Helman carefully opens the letter and reads, "Dear Class, I wish I could stay, but I can't, I can't, I can't!" She laughs and makes a sad face. "Your friend, Wendy. P.S. Please cheer up!" Ms. Helman leans toward the group, and pretends like she's going to cry. "I wonder why she said 'I can't. I can't. I can't three times like that? What do you think she was trying to tell us?"

Several hands shoot up. Ms. Helman calls on Emily who replies that Wendy was thinking that they wouldn't want her to leave so she wanted everyone to cheer up. Her response meanders a bit and Ms. Helman patiently waits for her to come to the point. Ms. Helman shakes her head yes, saying that that is probably why she put the P.S. because they had all been very sad when they discovered she was leaving. "What about this 'I can't, I can't, I can't'? What was she trying to emphasize?"

She calls on Matthew who says, "Three words."

For those unfamiliar with this classroom, this response wouldn't make much sense. But Ms. Helman turns and points to the poster the class had made about strategies for writing titled *Ways to Use Words* [Figure 6].

Figure 6. **First Grade Classroom poster displaying "Ways to Use Words."**

"She repeated it three times. She just can't stay – she doesn't have control over the situation because her family had to move. I'll hang it up here so you can look at this later. It sure is sad when our friends move."

Ms. Helman hangs the letter up on the chalkboard at a height that allows children to read it, then turns to the next item on the agenda – a story about Indian elephants that rob cars of food.

In this classroom every interaction has the potential for learning. Ms. Helman connects the learning to student experiences and to academic content that is woven into the daily experience of the classroom. A goodbye letter becomes an example of a writerly craft, with the power that the author is a former classmate. This type of productivity and support for student learning was not an anomaly but something we saw on a regular basis in our nine months in this classroom, something that Ms. Helman carefully planned and gracefully labored to bring to life. The individual skill this teacher brought to her classroom was augmented through powerful professional development provided by her district, a school culture of problem solving that defined itself as a professional learning community, classroom space that allowed children to be physically comfortable while they learned, and a rigorous commitment to assessment guided instruction. Yes, Ms. Helman was a superb teacher, but she was even better in an institutional context that supported her growth and that provided opportunities for intense, appropriate instruction. SAGE was part of this quality context.

The major contrast we saw in these pairs of classrooms is how student engagement can be facilitated in class size reduction contexts. Classrooms with high CLASS ratings provided emotional support, classroom organization, and instructional support to help students learn. In the 15:1 classrooms, this was accomplished organizationally when teachers were working with curricular resources that supported students to develop strategies to work on their own so that the teacher could provide targeted small group and individual instruction. It was also supported through instruction that was specific to the needs of particular children rather than to a generic curricular program. Student engagement was less evident in cases of undifferentiated differentiation, limited instructional feedback, and management interruptions during instruction. In the team-taught classrooms it was accomplished through teacher familiarity with both the content and the constructive teaming situations that would provide a seamless set of resources even with more students. Teams paired through a musical chairs approach did not have an opportunity to develop the synchrony needed to make the most of two professionals in the classroom.

These cases are exemplars of the 27 classrooms we studied over three years. In each case the structural solution of *class size reduction* alone is insufficient to explain quality. Instead the structural elements of class size configuration were potential enablers of teaching practices that were calibrated to student experience and need. We use these examples to suggest that *what* is done through class size reduction makes a difference for student learning. Smaller classes make certain things possible – but those things are also linked to curricular mandates, educator beliefs about learning, and the dynamics of classroom practice.

Conclusion

Following Ball and Forzani (2007) we found, through careful examination of the underlying processes in these classrooms, we get a better sense of the mechanisms that produce the patterns of quality. The class sizes provided by SAGE form a foundation for quality practice that must be leveraged through authentically nurtured emotional connections, thoughtfully planned and carefully carried out organizational strategies, and precise, targeted instructional supports. The teachers in the high quality classrooms in our sample were able to take advantage

of the opportunities of class size reduction in diverse ways, regardless of classroom configurations. What they had in common was careful planning that was calibrated to the needs of specific children, needs that encompassed both the social and academic dimensions of learning.

Professional Development

In the "Staff Development and Accountability" pillar, the SAGE law provides the following sub-pillars as guidance for schools:

1. Develop a one–year program for all newly hired employees that helps them make the transition from their previous employment or school to their current employment.

2. Provide time for employees to collaborate and plan.

3. Require that each teacher and administrator submit to the school board a professional development plan that focuses on how the individual will help improve pupil academic achievement. The plan shall include a method by which the individual will receive evaluations on the success of his or her efforts from a variety of sources.

4. Regularly review staff development plans to determine if they are effective in helping to improve pupil academic achievement.

5. Establish an evaluation process for professional staff members that does all of the following:

   a. Identifies individual strengths and weaknesses.

   b. Clearly describes areas in need of improvement.

   c. Includes a support plan that provides opportunities to learn and improve.

   d. Systematically documents performance in accordance with the plan.

   e. Allows professional staff members to comment on and contribute to revisions in the evaluation process.

   f. Provides for the dismissal of professional staff members whose failure to learn and improve has been documented over a 2–year period.

Because the overarching goal of SAGE, according to the program's website is "to improve student achievement," we focus throughout this section on *how* implementation of these sub-pillars has improved teaching and learning in the schools we studied. We have learned that school and district level decision-makers have incorporated the SAGE pillars and sub-pillars into their distinct contexts when they feel that implementation would benefit the school community.

From this perspective, it is not necessarily the format of the "professional development plan" that matters, it is the degree to which teachers have goals and are supported in achieving them. It is not the specific characteristics of an "evaluation process" that matters, it is whether or not teachers receive practice-improving, constructive feedback on their practice and how this feedback is intended and used.

This section is organized by the themes that emerged from data analysis. The *first* theme is: according to teachers and principals, when thoughtfully implemented the sub-pillars improve the quality of the children's educational experiences. In every situation where sub-pillars were carefully integrated into the school culture, positive results were observed by teachers and administrators. The *second* theme is: teachers view the sub-pillars favorably. In cases where schools have yet to fully implement particular sub-pillars, teachers often implicitly refer to the sub-pillars as changes they would like to see at their schools. The overarching point is that

SAGE has it right. The challenge is to make sub-pillars meaningful (and feasible) for schools so that individuals understand that working toward full implementation of all pillars and sub-pillars is beneficial for teachers, students, and the rest of the school community.

Implementation of the Sub-pillars Contributes to Success

In this section we focus on three aspects of the Professional Development and Accountability pillar: collaboration and planning time, professional development plans, and staff evaluation. Teachers and administrators report that each of these sub-pillars, when implemented in meaningful ways, contributes to the overall success of the school.

Collaboration and Planning Time

Based on the 480 schools that completed the EoY report in 2006-7, the average amount of "minutes of planning time per week" provided to individual SAGE teachers is 267 minutes, or approximately 4 and a half hours. The average amount of collaborative planning time (see below for the precise wording of the question) is 116 minutes, or slightly under 2 hours per week.

For our nine focus schools, the averages were significantly lower, with 174 minutes of individual planning time and 51 minutes of group planning time. However, upon closer inspection, we can see that it is not the averages that are interesting, but the ranges. For our nine school sample, teachers have between 30 and 270 minutes of planning time per week and between 30 and 150 minutes per week to plan together in groups (see Table 7). The specific time allotments were reported on the EoY as follows:

Table 7

Planning and Collaboration Time Allotment by School

"How many minutes of planning time per week are provided to an individual teacher in the SAGE grades during the school day?"		"How many minutes per week do teachers in SAGE grades have to plan together in groups such as grade level teams or cross-grade teams?"	
Farmington	205	Farmington	30
McMahon	210	McMahon	150
West Canton	240	West Canton	blank
Earhart	270	Earhart	60
Bethany	50	Bethany	30
Calloway	265	Calloway	30
Wellstone	30	Wellstone	30
Gallows	90	Gallows	45
Montford	210	Montford	30

This is corroborated by data from the teacher survey, which show that 72% (n = 72) of the teachers reported that they had individual planning time of 2-3 times per week or more. 42% (n = 42) of teachers report planning with other teachers who provide instruction or services to their particular students once per week or more and 69% (n = 69) report having this opportunity once per month or more. 60% (n = 60) report having the opportunity to plan with other teachers teaching the same grade or subject once per week or more and 88% (n = 88) report having this opportunity once per month or more. Notably, each of these "times" vary in duration. It is the

case that some teachers who only plan in collaborative settings once per month do so for a longer duration than those who have these opportunities more often. What is important here is not only that teachers have this time, but what they do with it (as reflected in what they say about it).

In interviews, individual planning time was not discussed at length, beyond the general availability of time during the instructional day freed from instructional duty. However, collaborative planning time is a different story. A relatively new tool for teacher support, collaborative planning time works against the single teacher model of practice. It has to be coordinated among multiple individuals. Without the influence of administrators (or those who create the school's master schedule), collaborative planning time is difficult to coordinate. If teachers do not have "non-instructional" time together, coordinating collaborative time is challenging. Some teachers are initially resistant to the investment needed to work with colleagues. Take for example, Marsha Delton, a third grade teacher from Calloway Elementary school. In the beginning of the 2006-07 school year, Marsha learned that she would have common planning time once a month for two hours. Because it was scheduled to occur after school hours, Marsha was hesitant about it because she was concerned that it would take too much time away from her personal responsibilities. However by the end of the year, she pointed to collaborative planning time as the thing that made her a better teacher:

> I think the collaborative planning time helped… Because, since our classrooms in third grade are spread out [in different areas of the building], it's extremely difficult to touch base [with each other] and talk about things, so when we get to have that time—when we can do some collaborative planning and make sure we're all on the same page and following the same pacing schedules and things like that—we want to. I think that's helped a lot in getting me on track to where you know I need my kids to be.

As explained by Marth Collier, the principal of Calloway Elementary school, the decision to set aside some time each month for collaborative planning was a response to requests made by the teachers:

> Last year some of them expressed a need for common planning time, especially at the primary area. So when I was doing the schedule for specialists, I made sure there was a time that all of them could be available if they wanted to meet and work on some activities and things like that. So, they have a built in a common planning time.

Teachers needed the principal to help schedule their days so common planning and collaboration time was possible. Notably, since the principal required teachers to stay beyond their contract day, they were paid for the extra time.

Similarly, at other schools, collaborative or "common" planning time (as it is referred to by many) is important for teachers. This is the case with newer teachers, like Molly Masters, a kindergarten teacher at Earhart Elementary school.

> Working with other teachers in this school. I think because they've really helped me to think more about things like… what if you do this activity to go along with this activity? And I've done a lot of collaborating with the speech and language teacher to help the special education student in here.

From interviews with teachers, we have learned that many desire to collaborate as a way to "learn the ropes" or a way to generate new ideas about how to connect with students or teach specific concepts.

At Montford, the school that is arguably the most collaborative of the nine in our sample— teachers seem to feel at ease with getting ideas from multiple sources, stating that they get ideas from:

> …books, magazines—we go online. Fellow teachers come up and say, "Hey I've found this, do you want to try it?" "Sure, we'll try it." And sometimes we get some of our best ideas lying in bed. I said to her this morning I said it's T day. Let's do some things with our toothpicks. You know, t-shirts and toothpicks. (laughs) You just… You rely on a lot of sources and, of course, on each other. (Karen Martin, Montford)

Montford teachers are encouraged to bring their concerns to the administration. However, it is not assumed that the principal will have all of the answers for all of the questions. Luckily this particular principal is comfortable with this because she knows there are avenues for her to use to get the teachers the assistance they need to succeed.

> [Interviewer: When do you call in outside resources for teachers? How does that play out?] What's really helped us [is our] action teams… Because there's an action team for reading, there's an action team for writing, one for math [etc.]. And if the [someone] needs to meet with our curriculum director, she goes to the people who are most interested in reading and doesn't have to try to get to this whole staff to help make decisions. So that's been really helpful. (Mary Durst, principal, Montford)

Of course, Montford is an exceptional example. They have implemented what is known as a "shared leadership" model, which in short, takes the decisions that are typically considered administrative decisions and allows all interested members of the school community to weigh in on them. How this works is seen in an excerpt from a Montford shared leadership meeting:

> Dina asks Sandy to read the meeting guidelines and then Dina quickly asks for volunteers to take over the tasks (time keeper, someone to take the minutes, task master) for the meeting and then she get started by passing around the minutes from last month's meeting. The agenda is already on the table and ready to go. Dina reviews the flow chart with the group and then goes over the agenda with the group.

> One of the big topics is assessment. Some of the issues that come up is the concern the kindergarten has with being asked do assessment with their classes at the beginning of the year when the children are getting used to a new routine – and then they are required to do another round of assessment just before conferences in November. Other teachers add that some of the assessments seem invalid. One of the teachers says that she thinks that [assessments included in their curriculum package] don't accurately reflect what the children know and what they can do. There is also some talk about the fact that both this assessment and the WKCE test take place around the same time…perhaps these assessment can be seen as "guided practice" for the WKCE. There is another discussion of how the district is recording this information. Another teacher questions the use of practice tests for other tests, saying "we are burning these kids out with tests." (fieldnotes, Montford Elementary)

Because of their use of this model, grievances that could contribute to a negative atmosphere for teachers and students are aired, discussed, and dealt with. However, this is not the case at all schools—but it does serve as a model to which others can aspire. In sum, this section highlights

the fact that, when thoughtfully implemented on a grade-level or a school-wide basis, collaborative or common planning time can be beneficial for individual teachers and the school.

Professional Development Plans (PDPs)

All of the teachers we interviewed have goals for themselves—some way to improve their practice and become better teachers over the course of the year. As mentioned above, schools differed because they have emerged in different circumstances, with different leaders, teachers, parents, students, material, and norms. Requirements for PDPs reflect these differences. Some schools require formal (written) plans for all teachers, while others require informal plans or only require plans from teachers in their first few years of teaching, assuming that after that point, teachers are able to manage their own "development." While all of the teachers we spoke to have personal goals for improving their practice, what is less consistent is the degree to which these goals correspond to other teachers in the school.

Out of the 480 schools that completed an EoY report, 98% (n = 469) responded that their school has "a plan in place that includes explicit goals for professional development specifically focused on improving academic achievement?" 88% (n = 422) of schools report than PDPs are completed for individual SAGE teachers.

All of the schools *in our nine school sample* responded affirmatively to the aforementioned question on the EoY and 67% (n = 6) of the schools reported that PDPs are completed for individual SAGE teachers. Interestingly, one of the schools where PDPs are not completed for individual SAGE teachers, Earhart, is highlighted in this section as having an exceptionally coordinated and powerful professional development framework. This is a powerful indicator that simple "yes" or "no" questions about SAGE in multiple contexts are insufficient to understand the nuances of implementation across contexts.

For the most part, the teachers' responses to interview questions about PD do align with their school's answers on the EoY report. For example, the Farmington EoY reported that most to all of the teachers use 'informal' PDPs. Farmington is a good example of a school where teachers' goals for improvement are very personal and, though they are self-reflective and focus on important issues, they do not represent a coordinated effort at the school level. In response to a question about her goals for improving her teaching, Dana Read from Farmington relates that her goals are based on what she sees as her major weakness:

> I guess for me, a huge ongoing goal is that I'm a very 'ideas person.' I'm very global. And for me a goal for me is always to make sure that I'm getting the details... . I love teaching, I love getting in there with my kids and working on things, but the paperwork, the extra things that they ask us to do, that's something that's difficult for me. So I just have to always constantly work at that.

Similarly, a colleague, Darren Delmar, felt that he wanted to continue to work to help children develop skills related to the use of computers, mainly focusing on MS Office software products. Tammy Ferin, a kindergarten teacher took a different approach. Her goals were more focused on instructional strategies including the school's writing program:

> Writing was a big goal for us. We got a new writing program and as a kindergarten we were working on it. We went to a reading conference. We presented it at the staff meeting, and I think that's why our kids are better writers this year because we've been doing a lot more with it.

This "personal" type of orientation toward PD is in stark contrast to the teachers from Earhart Elementary school who all expressed a desire to improve the quality of their math instruction. However, this desire did not emerge on its own. Teachers attended a half-day workshop on math at the beginning of the year and this inspired all of the teachers we spoke with to think about the way they teach math in their own classrooms and, as was the case with Mrs. Masters (below), work with other teachers during common planning times to design lessons and coordinate activities. This math focus was so well-integrated into the school culture that each of the individual teachers spoke as if she had thought of it herself. Though they attended the same workshop, each of them has reflected on math in their classrooms, challenged their own assumptions about their practice, and made an effort to think about math standards in relation to their teaching:

> And this year what we [the grade level team] … we're having a day where we sat together and we planned and it's based on math. And what we started doing is—we put, we're still in the middle of putting this binder together that has all of the kindergarten math standards broken down. And then within each standard we are working on putting an activity to go with each theme that we do. So hopefully by the end of the year we have this huge binder, it's actually already full (laughs). I think I need another one. Putting this together… that has all of these math ideas in there so next year we can say, okay we're doing farm, I need a farm probability lesson, let's go to that section and… [Interviewer: …awesome. And this is just something you're doing…?]…as a kindergarten team. Uh huh. [Interviewer: Nice. Who came up with that idea?] I did.

This is a case of tightly coupled inspiration and enactment. The PD provided the inspiration and the teachers bought into it and followed through with their own ideas and initiatives. As Ms. Masters indicates, the PD was reinforced by common planning times that allowed teachers to keep the momentum provided by the PD. It may not have been their idea at the outset, but they made it their own. This is an interesting component of the Earhart PD plan. Although their focus was chosen for them, each of the teachers we interviewed used the opportunities provided to embrace the focus.

One thing that is consistent across the nine schools in which we conducted interviews is that teachers measure the "success" of their goals and PD programs through the children: their excitement, their understanding, their actions, or their test results. Time and time again, response to the question, "How will you know if you've been successful?" are:

> …well what the kids can do, what they're showing me that they can do, and their growth over the year: if they understand, what they're producing and writing. Do they have skills? Maybe at first you have to really guide them through the whole thing but then hopefully by the end of the year they have enough skills that they can do these things on their own. (Michaela Pate, Wellstone)

> If you like being a teacher I think it helps the children too... . So if it's fun for me, it should be fun for them. If I can just keep them interested and keep them happy, then I can see that they are growing, that they are doing well. Then, I guess, I'm doing something right. Maybe not perfect but you keep trying. You keep trying to get better. (Sarah Ayermeyer, West Canton)

> That's easy, because if I'm successful or not—I can see it in the kids. I can see it in the work that they give me. (Sharon Wilton, McMahon)

Since the purpose of the SAGE program is to "to improve student achievement" we took this as a promising sign. Teachers are evaluating their efforts by observing their children and what they can do.

Future researchers should consider investigating the ways in which the use of PDPs at the school level compare to the use of PDPs at an individual level, including the challenges, benefits, and implications for school-wide improvement for each. If the goal of a PDP is to intensify teachers' focus on a specific area in need of improvement, it may be better to pool school resources to focus on that area, particularly in relation to SAGE since SAGE goals are decided at the school level.

Staff Evaluation Processes

When thinking about staff evaluation, it is necessary to think beyond number of "times observed" to the results of these evaluations and observations. How do evaluations serve to improve teacher practice, classroom quality, and the education of children? In strictly quantitative terms, according to the teacher surveys, 68% (n = 68) of teachers are observed by their building principal at least one time per year. Some are observed as many as 30 times per year. Clearly, there are distinctly different evaluation practices in schools where teachers are observed multiple times per year and those where they are observed less than one time per year. We can better understand these orientations by comparing three schools: Earhart, Farmington, and Calloway. The majority of teachers from Earhart and Calloway report being observed multiple times per year, while the many of the teachers from Farmington reported being "formally" observed once every three years and "informally" observed more often.

What does this distinction between "formal" and "informal" mean? To better understand, we look to the interview data. Darren Delmar reports that because he is tenured, the principal only observes his teaching once every three years. Admittedly, answering a question: "How often during the school year does your principal observe your teaching?" could have been difficult, since the "per year" answer is zero. But there is more to this confusion. Mr. Delmar states that in addition to this formal observation the principal also gives the teachers "an end of the year review" each year. Since the "once every three year" observation is referred to as an "observation" and the annual observation is referred to as a "review" (not an observation), it is possible that, though the principal observes annually, the question may have been confusing for them. According to Mr. Delmar "[The principal] gives us an end of the year review…. I mean it's okay but she sees you for half-an-hour and that makes her decision, so I don't put a lot of stock in that. "

This approach to evaluation is less about ongoing collaborative improvement than a kind of high stakes assessment, first for tenure and then maintenance. It is unlikely to produce constructive, practice improving feedback for obvious reasons. If the principal walks out of the classroom and won't be back for three years, what is the incentive to use this type of evaluation for improvement? What is it about tenure that makes evaluation unnecessary? In discussing how she supports strong teachers versus weak teachers, the principal of Farmington Elementary school says that:

> One way I try to support them [strong teachers] is to let them know that I know, or I believe, they're super. They're doing a great job. But then to say, I'll count on you to let me know if something is awry or amiss. But for the struggling staff members, I've needed to do a formal plan of improvement. (Catherine Paley, Farmington)

This sentiment, that of a hands-off approach for strong teachers, is echoed by Dave Willenski, principal at Bethany Elementary school:

> You know when you have a strong teacher, 90 percent of the time you just have to point them in the direction, and then you need to get out of their way. Because if you get in their way you're doing more harm than good. Now on the other hand you have a struggling teacher, if I use an 'outline' analogy, not only do you give them the major points, but you give every sub-point that you think is important right along the way. You make it very prescriptive.

Though it is clear that these principals have a system that they believe works for them, their staffs, and their schools, from an outsider's perspective it seems that this approach misses the critical purpose of evaluation in the improvement process. Though there is something to be said for "trusting" strong, experienced teachers, most teachers could benefit from constructive feedback on their practice from thoughtful, knowledgeable observers, as will be discussed in the next section.

Notably, the idea of "observation" can be interpreted differently in different contexts. At Farmington, teachers did not seem to consider the annual "end of the year" review as an observation. That term carries different significance for them. In contrast, at Earhart an observation seems to be understood as "anytime the principal is watching you" (which explains why some teachers report being observed as many as 30 times per year):

> [The principal] comes in, she's been coming in a lot lately to all the classrooms. She'll be in for five minutes or so. Sometimes she brings in her little keypad and she'll write notes to us, and it's all positive feedback on those notes. She'll say I really liked when I came in and I saw, your demonstration with writing and this is what I saw that I really liked. And then when we had the formal observations… first we met to talk about the lesson and then she would come in and she was at my desk with her laptop and she was filling out the evaluation as I was teaching. And then we would meet about a week later just go over what she saw and what she liked. If there was any constructive criticism, she would let me know. (Molly Masters, Earhart)

Interestingly, Ms. Masters expects that the principal will come to her classroom and that she will receive constructive criticism on her practice. As a second-year kindergarten teacher, Ms. Masters is fortunate to have a knowledgeable principal who can identify and comment on good instructional practices in kindergarten. After one such observation, Paula Walworth leaves the following note on Ms. Masters' desk (this is an excerpt from field notes):

> At the top it says, "You are above the line." [This is a reference to the shared behavior program used at the school – this means high quality behavior.] This is what it says:

> 10/31/06

> When I visited your room today you were beginning to talk about the day's writing assignment. I was amazed at the number of ways you had for the class to think about the words in your sentence. What excellent best practice in literacy, to have them clap, count, sound it out, and look at the letter chart for each letter or picture. You are sure to reach everybody via one strategy or another. You are developing some fabulous writers.

> Paula

Notably, this is the same school where all of the observed teachers were united in their desire to improve their math practice. It is possible that the fact that the principal visits classrooms often led her to the conclusion that teachers would benefit from PD in math. In the future, researchers should consider studying the correlation between the frequency of low-stakes observations and the relevance of school-wide professional development efforts. They should also consider studying the role of instructional leaders, be they principals, curriculum directors, subject area specialists, or others, in coordinating PD in elementary schools.

Logically, frequent observation does give principals more insight on what's happening in the classrooms in their schools than simply only occasionally meeting with teachers. However, the intent of the observation also seems to matter for how teachers receive and interpret this type of observation. In at least one school, Calloway, some teachers are hurt when they do not receive feedback from the principal:

> [During walkthroughs and monitoring conferences] The principal rarely compliments. And a lot of the staff feels a little like she could be a little more complimentary. She seems to be trying to catch us being off guard or off task instead of trying to catch us being good…it sort of contributes to the morale. You know, if you enjoy your work, I mean research shows you're apt to do a better job. (Gloria Howard, Calloway)

In this third scenario, the principal does walk-through and evaluate often, but focuses on student outcomes rather than on teacher practice. This leads to a situation where all she can do is comment on what is lacking in the classroom. She does not comment at length on the "good" things that teachers do (like the principal at Earhart does) because she doesn't see it as her place to comment on what teachers do or do not do—only what they accomplish or do not accomplish, in terms of test scores, reading levels, and student promotion. The fact that outcomes are produced by practice is missed in this approach and is compounded by an approach that is high stakes for teachers and students. In her interview, the principal admits that she needs to improve the feedback portion of the evaluation process:

> Well the one thing that the district is having us do more of this year is the learning walks. So we're to go through and then we're to look at things like how the lesson was presented, did we see the students using critical thinking skills, was it teacher led, did teachers use worksheets and videos and things like that. And then we look for evidence of Bloom's Taxonomy. … And the one thing I haven't gotten to is the feedback part that we give to the teachers. (Martha Collier, Calloway)

In this section we are emphasizing the idea that it is not only important *how often* teachers are observed by those who can provide helpful constructive feedback, but it is also important to think about how these evaluations are used to improve performance. Moreover, it highlights that in most cases, there are some practices that are good and some that could be improved. For example, at Calloway, the principal does respond to teachers' requests for collaboration time. There were concerns however about the support provided by principal evaluations. Are they frequent and helpful or infrequent and high stakes? Which has the best results for teachers and students? What type of experience and knowledge does an observer need to provide meaningful feedback? What types of feedback do teachers want and need? Is the school a place where this type of feedback would be welcomed? If not, is this a goal? From what we have learned thus far, we can only say that there is no single "best method" for meeting the expectations laid out by the SAGE law. There are multiple factors to consider at every turn and

what works well in one school may not work well in another. Context is important to consider at all junctures.
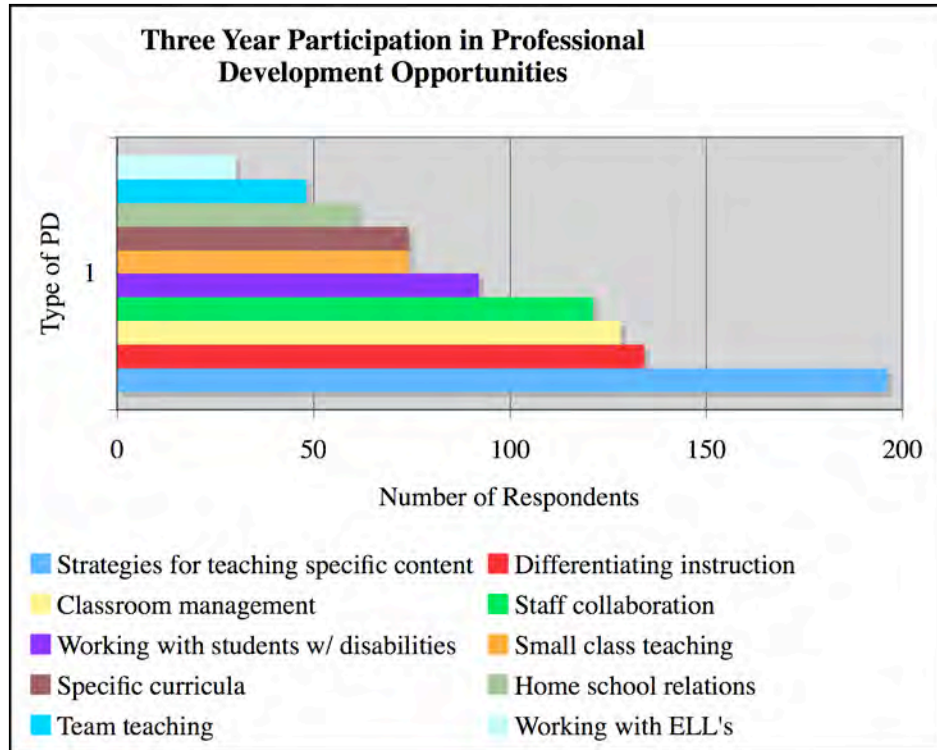
Implementation of Sub-pillars is Desirable

According to their EoY reports, each of the nine schools we studied have programs in place that provide both teachers and administrators with:

- Training to improve use of student assessment data

- Support to gain greater understanding of Wisconsin Student Standards and assessment frameworks

- Support for effective implementation of specific curriculum in a content area
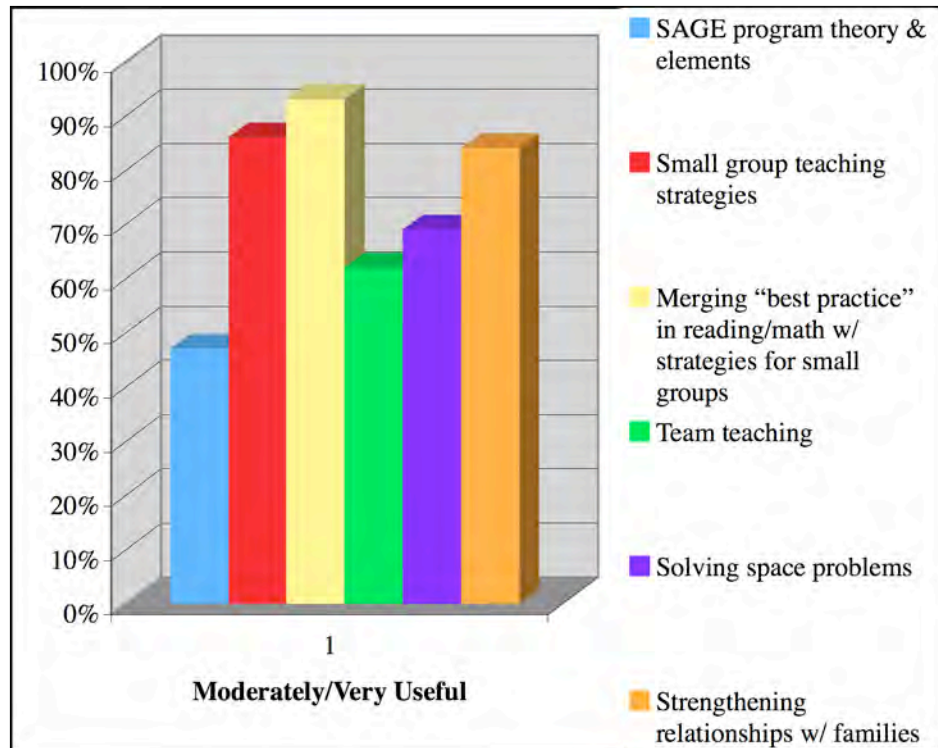
Additionally, they also reported that they have professional development programs in place for teachers to address classroom management, improving instruction for children with special needs, and use of small group or hands-on activities.

The teacher survey provides additional insight into the types of programs in which teachers participate. The teacher survey provided a list of ten topics and asked teachers to indicate whether or not they participated in PD related to each topic in various formats including: presentations or workshop, university courses, and extended programs (such as summer workshops), and job-embedded courses (such as study groups, peer coaches, mentors). For example, if teachers learned about working with English Language learners in a workshop and in a university course, they would check both boxes. Each topic had a potential of being referenced in four formats by each teacher. Therefore, with 100 respondents, it was possible for each of the ten topics to be referenced up to 400 times. High frequency topics, identified as topics that were referred to more than 100, were *teaching specific content, classroom management, differentiation,* and *collaboration*. Topics that are closely related to SAGE pillars (small class teaching, team teaching, and family involvement, noted in green) were less frequently reported, as illustrated in Figure 7.

Figure 7. **Professional development participation over a three year period.**

In addition to describing past PD involvement, we asked participants to rate the utility of PD work directly related to SAGE teaching. This figure summarizes what we learned from the teacher survey in relation to the usefulness of "SAGE-focused" PD (including those who considered the topic moderately useful and very useful). Since there were 100 respondents, each of the following percentages correlates to that number of respondents. Respondents were enthusiastic about SAGE-specific PD, with more than half indicating that *strategies for teaching small classes, merging "best practices" in literacy/math with small teaching strategies,* and *strengthening home school relationships* would be very useful.

Figure 8. **Utility of SAGE Professional Development.**

Interviewed teachers reported similar ideas as those illustrated in Figure 8. Specifically, teachers were asked, "If there were a SAGE coach that could come work with you to fine-tune your teaching, what would you want help with?" Many thought that PD related to working with smaller groups would be helpful:

> I would like help with how can I use different ideas with working with a smaller group? That would be my thing. You know, what else can I do in here that I can do with a small group that I can't do with a large group? Tell me (laughs), give me some ideas. (Sharon Wilton, McMahon)

> Well like as of right now I'm able and have been pulling the small groups out like whether it's for writing or reading or math. But I feel like they could be doing more. And so just kind of managing it that way I guess… (Molly Masters, Earhart)

Although all schools reported that they have programs in place that supported "use of small group or hands-on activities" it is clear that teachers do not recognize what is offered as sufficient for their needs.

Teachers were also interested in topics that correspond to the SAGE law beyond what was listed on the teacher survey. In fact, most of the PD teachers reported they would find useful is directly addressed in the language of the law. For example, when first grade teacher Tammy Helman states that she wants to do "a little more collaborating" with her new grade level team, she is directly addressing the second sub-pillar that indicates that schools should "provide time for employees to collaborate and plan."

Numerous teachers responded that they would be interested in a SAGE coach providing ideas and constructive input. This desire coincides with the fifth sub-pillar (the one that mentions the evaluation processes), but with one slight twist. Although it seems that teachers very much want to have "another set of eyes" to help them think about their practice, the perspective they desire does not involve career altering stakes. It is simply constructive help. Although multiple teachers, representing five of our nine schools, speak at length on this idea, we include one representative quote:

> I guess maybe I'd like to see somebody who would be able to come in and help me use what we have here—tie all that together, so that it makes sense in a better way for the children to learn ideas and themes rather than segmented pieces. I think that would be important. And maybe an outside person could do that … Maybe that person could come in and make a suggestion or tie things together better. (Patience Carter, Bethany)

Interestingly, the teachers who team with another teacher rarely express this desire. They already have someone to talk to about their practice. Teaching alone in a classroom is a solitary experience. This, once again, highlights the importance of having colleagues with whom to converse, share ideas, and collaborate on a regular basis. These ideas also bring the idea of PD as "workshops" under scrutiny in that the teachers we spoke to believe that they would benefit just as much, if not more, from having experts watch them and provide constructive feedback on their practice.

Conclusion

This analysis of professional development provides additional evidence that the SAGE law, as designed, is a good roadmap for participating schools to follow. In schools where the sub-pillars are implemented in ways that focus on improvement and constructive collaboration and feedback, teachers and principals report positive results. Moreover, when asked what types of support would be helpful, teachers' answers directly relate to the SAGE vision. Changes are meaningful when they happen in concert with careful evaluation, reflection, and planning. Future researchers may consider studying how to most effectively help schools progress toward full implementation of the SAGE pillars and sub-pillars.

Limitations

This in depth study of nine SAGE schools examines practice in a variety of settings, highlighting the challenges of implementing this reform in local contexts. Given its focus, it does not have traditional statistical generalizability, with inferences to the population of SAGE schools. Specifically, we do not have measures of student outcomes at the classroom level. Therefore, we are required to rely instead on measures of school achievement on third and fourth grade WKCE scores. For this reason we cannot directly make assertions about the particular practices of individual teachers and student outcomes on a year-by-year basis.

Readers are reminded that the EoY report, teacher survey, and interviews are self report tools, that have within them all the limitations and strengths of those types of data generation strategies.

Instead of statistical generalization, readers can engage in what Stake calls *naturalistic generalizability*, a process by which individuals generalize from one experience to another. This kind of generalizability requires knowledge of context so that individuals can assess the degree to which the assertions made in the research are similar/different from their own experience. This approach to research is central to the projects using UW's IQ^2 approach – the integrated qualitative-quantitative strategy.[14] Using multiple sources of data ranging from reports from all SAGE schools, surveys of teachers in the nine-school sample, observations and interviews, and ratings of classroom quality, we have created a set of assertions that connect context and practice. We are not suggesting that what we found is present in ALL SAGE classrooms, at ALL times. Instead, it portrays the lived experience of SAGE in 9 school communities carefully selected to portray a range of locations and resources at a particular time in the first decade of the 21st century. We urge readers to make relevant connections to their knowledge of the SAGE program in drawing conclusions from this report.

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[14] See http://www.wcer.wisc.edu/projects/projects.php?project_num=428 for a description of this project.

Conclusions, Recommendations and Implications for Future Research

Conclusions

In this report we argue that class size reduction is most successful when it is implemented in the context of high quality instructional practices, well-integrated and meaningful professional development and teacher evaluation, and well-coordinated activities that connect home and school. In this section we summarize key issues in the report.

Class Size Reduction

- There are multiple ways to implement reduced class size well. A range of practice and quality could be found in each class size reduction configuration.

- 50% of all SAGE classrooms limit class size to 15:1. 23% stretch that limit to 16-17. 12% provide two teachers to a group up to 30 students and 15% provide additional staff for literacy and mathematics instruction.

- When schools stretch the 15:1 limit, they cite enrollment growth and insufficient SAGE funding as the primary reasons.

- Schools often use multiple sources of funding to support SAGE implementation.

Lighted Schoolhouse

- Connecting with families happens at multiple levels of practice within schools.

- School-wide activities brought families to school for orientations, celebrations, or to teach academic content. These activities were typically designed by school people and were most successful when they responded to particular family needs.

- Classroom activities informed families of instructional activities and attempted to help reluctant families connect with school.

- Resources were a limiting factor in home-school interaction. SAGE funding was used for classroom staffing and district budget cuts had reduced time, materials and staffing available for outreach.

- Some ideas generated by teachers challenge traditional conceptions of the role of teachers and parents in forging connections between school and home.

Rigorous Curriculum

- SAGE classrooms in our sample were rated on average more highly than classrooms in the CLASS tool's empirical sample, with ratings for Emotional Support and Classroom Organization in the high moderate level and Moderate for Instructional Support.

- CLASS ratings were related to student achievement. Classrooms in schools rated as high achieving had the highest ratings, followed by classrooms in schools that were labeled rapidly improving, followed by classrooms in schools with low student achievement.

- Higher CLASS ratings were found in 15:1 classrooms where students were taught to work independently so that the teacher could provide targeted individual and small group

instruction. Elevated CLASS ratings were produced when instruction was calibrated to student needs and when classrooms were well organized and managed.

- Team-taught classes had higher CLASS ratings when staffing allowed teaching partners to develop an long term relationships with one another and when they were well acquainted with curriculum.

Professional Development

- Planning time was an important resource for teachers. Collaborative planning time, scheduled into the instructional day, was cited as particularly important.

- Teacher evaluation was seen as most valuable when it was used as ongoing formative assessment with a colleague rather than intermittent high stakes evaluation by a superior.

- Teachers described a variety of professional development resources and noted the need for SAGE-specific development and the use of observers who could provide critical and supportive feedback on practice.

- Where SAGE pillars are meaningfully implemented (meaning they have direct and constructive effects on teacher practice) teachers appreciate them and feel a real difference.

- Where SAGE pillars are not fully implemented, teacher request similar services (though low-stake, practice improving assistance is preferred to high-stakes evaluations).

Recommendations and Implications for Future Research

- After three years of fieldwork in our sample of nine schools, it would be fruitful to study a new sample of SAGE practice to explore the generalizability of findings from the first sample.

- Because it is clear that schools have implemented the pillars and sub-pillars in different ways and to different degrees, it is important to use available data (from the EoY) to choose schools with a range of implementation strategies to help us understand the connection between high levels of implementation and achievement.

- Since the goal of SAGE is to "promote academic achievement through lower class sizes in the primary grades"[15] school academic achievement should also play a role in the selection of a new sample.

- CLASS provided a useful tool for analyzing SAGE in practice and it should be used in subsequent years' research.

- The quantitative component of the evaluation is currently analyzing data from Milwaukee and Madison to explore SAGE effects in kindergarten, first, second, and third grade. The next phase of sampling should focus on these districts and link quantitative and qualitative data when possible.

- There is still much to be learned from the qualitative evaluation things that would not be visible from analysis of student outcomes. Continued investment in this aspect of the evaluation should be seriously considered in future planning.

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[15] See: http://dpi.wi.gov/sage/ (current language retrieved on July 5, 2008)

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APPENDICES

APPENDIX A: SAGE Law

118.43 Achievement guarantee contracts; state aid.

118.43(1)
(1) Definitions. In this section:

118.43(1)(a)
(a) "Class size" means the number of pupils assigned to a regular classroom teacher on the 3rd Friday of September.

118.43(1)(b)
(b) "Low income" means the measure of low income that is used by the school district under 20 USC 2723.

118.43(2)
(2) Eligibility; application.

118.43(2)(a)
(a) The school board of any school district in which a school in the previous school year had an enrollment that was at least 50% low-income is eligible to participate in the program under this section, except that a school board is eligible to participate in the program under this section in the 2000-01 school year if in the 1998-99 school year a school in the school district had an enrollment that was at least 0% low-income.

118.43(2)(b)
(b) In the 1996-97 school year, the school board of an eligible school district may enter into a 5-year achievement guarantee contract with the department on behalf of one school in the school district if all of the following apply:

118.43(2)(b)1.
1. In the previous school year, the school had an enrollment that was at least 30% low-income.

118.43(2)(b)2.
2. The school board is not receiving a grant under the preschool to grade 5 program on behalf of the school under s. 115.45.

118.43(2)(bg)
(bg) In the 1998-99 school year, the school board of an eligible school district may enter into a 5-year achievement guarantee contract with the department on behalf of one school in the school district if all of the following apply:

118.43(2)(bg)1.
1. In the previous school year, the school had an enrollment that was at least 30% low-income.

118.43(2)(bg)2.
2. The school board is not receiving a grant under the preschool to grade 5 program on behalf of the school under s. 115.45.

118.43(2)(br)
(br) In the 2000-01 school year, the school board of an eligible school district may enter into a 5-year achievement guarantee contract with the department on behalf of one or more schools in the school district if all of the following apply:

118.43(2)(br)2.
2. The school board is not receiving a grant under the preschool to grade 5 program on behalf of any of the schools under s. 115.45.

118.43(2)(br)3.
3. The school board, if eligible to participate in the program under this section in the 1996-97 and 1998-99 school years, had participated in the program during either school year.

118.43(2)(br)4.
4. None of the schools is a beneficiary of a contract under this section.

118.43(2)(c)
(c) Notwithstanding pars. (b) and (bg), the school board of the school district operating under ch. 119 may enter into an achievement guarantee contract on behalf of up to 10 schools under par. (b) and up to 10 schools under par. (bg).

118.43(2)(d)
(d) If an eligible school district has more than one school that qualifies under par. (b), the school board shall apply on behalf of the school with the largest number of low-income pupils in grades kindergarten and one.

118.43(2)(e)
(e)

118.43(2)(e)1.
1. If the school board of an eligible school district does not enter into an achievement guarantee contract with the department, a school board that has entered into such a contract, other than the school board of the school district operating under ch. 119, may apply to the department to enter into such a contract on behalf of one or more schools that meet the requirements under par. (b), (bg) or (br).

118.43(2)(e)2.
2. If more than one school board applies under subd. 1., the department shall determine which school board to contract with based on the number of low-income pupils in grades kindergarten and one enrolled in the schools and on the balance of rural and urban school districts currently participating in the program.

118.43(2)(g)
(g) The department may renew an achievement guarantee contract under pars. (b), (bg), and (br) for one or more terms of 5 school years. As a condition of receiving payments under a renewal of an achievement guarantee contract, a school board shall maintain the reduction of class size achieved during the last school year of the original achievement guarantee contract for the grades specified for the last school year of the contract.

118.43(3)
(3) Contract requirements. Except as provided in pars. (am) and (ar), an achievement guarantee contract shall require the school board to do all of the following in each participating school:

118.43(3)(a)
(a) *Class size.* Reduce each class size to 15 in the following manner:

118.43(3)(a)1.
1. In the 1996-97 school year, in at least grades kindergarten and one.

118.43(3)(a)2.
2. In the 1997-98 school year, in at least grades kindergarten to 2.

118.43(3)(a)3.
3. In the 1998-99 to 2000-01 school years, in at least grades kindergarten to 3.

118.43(3)(am)
(am) *Class size; additional contracts.* For contracts that begin in the 1998-99 school year, reduce each class size to 15 in the following manner:

118.43(3)(am)1.
1. In the 1998-99 school year, in at least grades kindergarten and one.

118.43(3)(am)2.
2. In the 1999-2000 school year, in at least grades kindergarten to 2.

118.43(3)(am)3.
3. In the 2000-01 to 2002-03 school years, in at least grades kindergarten to 3.

118.43(3)(ar)
(ar) *Class size; additional contracts.* For contracts that begin in the 2000-01 school year, reduce each class size to 15 in the following manner:

118.43(3)(ar)1.
1. In the 2000-01 school year, in at least grades kindergarten and one.

118.43(3)(ar)2.
2. In the 2001-02 school year, in at least grades kindergarten to 2.

118.43(3)(ar)3.
3. In the 2002-03 to 2004-05 school years, in at least grades kindergarten to 3.

118.43(3)(b)
(b) *Education and human services.*

118.43(3)(b)1.
1. Keep the school open every day from early in the morning until late in the day, as specified in the contract.

118.43(3)(b)2.
2. Collaborate with community organizations to make educational and recreational opportunities, as well as a variety of community and social services, available in the school to all school district residents.

118.43(3)(c)
(c) *Curriculum.*

118.43(3)(c)1.
1. Provide a rigorous academic curriculum designed to improve pupil academic achievement.

118.43(3)(c)2.
2. In consultation with the department and with the participation of the school's teachers and administrators and school district residents, review the school's current curriculum to determine how well it promotes pupil academic achievement.

118.43(3)(c)3.
3. If necessary, outline any changes to the curriculum to improve pupil academic achievement.

118.43(3)(d)
(d) *Staff development and accountability.*

118.43(3)(d)1.
1. Develop a one-year program for all newly hired employees that helps them make the transition from their previous employment or school to their current employment.

118.43(3)(d)2.
2. Provide time for employees to collaborate and plan.

118.43(3)(d)3.
3. Require that each teacher and administrator submit to the school board a professional development plan that focuses on how the individual will help improve pupil academic achievement. The plan shall include a method by which the individual will receive evaluations on the success of his or her efforts from a variety of sources.

118.43(3)(d)4.
4. Regularly review staff development plans to determine if they are effective in helping to improve pupil academic achievement.

118.43(3)(d)5.
5. Establish an evaluation process for professional staff members that does all of the following:

118.43(3)(d)5.a.
a. Identifies individual strengths and weaknesses.

118.43(3)(d)5.b.
b. Clearly describes areas in need of improvement.

118.43(3)(d)5.c.
c. Includes a support plan that provides opportunities to learn and improve.

118.43(3)(d)5.d.
d. Systematically documents performance in accordance with the plan.

118.43(3)(d)5.e.
e. Allows professional staff members to comment on and contribute to revisions in the evaluation process.

118.43(3)(d)5.f.
f. Provides for the dismissal of professional staff members whose failure to learn and improve has been documented over a 2-year period.

118.43(4)
(4) Other contract provisions. Each achievement guarantee contract shall include all of the following:

118.43(4)(a)
(a) A description of how the school will implement each of the elements under sub. (3), including any alternative class configurations for specific educational activities that may be used to meet the class size requirement under sub. (3).

118.43(4)(b)
(b) A description of the method that the school district will use to evaluate the academic achievement of the pupils enrolled in the school.

118.43(4)(c)
(c) A description of the school's performance objectives for the academic achievement of the pupils enrolled in the school and the means that will be used to evaluate success in attaining the objectives. Performance objectives shall include all of the following:

118.43(4)(c)1.
1. Where applicable, improvement in the scores on the examination administered to pupils under s. 121.02 (1) (r).

118.43(4)(c)2.
2. The attainment of any educational goals adopted by the school board.

118.43(4)(c)3.
3. Professional development with the objective of improving pupil academic achievement.

118.43(4)(c)4.
4. Methods by which the school involves pupils, parents or guardians of pupils and other school district residents in decisions affecting the school.

118.43(4)(d)
(d) A description of any statute or rule that is waived under s. 118.38 if the waiver is related to the contract.

118.43(4)(e)
(e) A description of the means by which the department will monitor compliance with the terms of the contract.

118.43(5)
(5) Annual review; noncompliance.

118.43(5)(a)
(a) At the end of the 1996-97 school year, the department may terminate a contract if the department determines that the school board has failed to fully implement the provisions under sub. (3).

118.43(5)(b)
(b) Annually by June 30 through the 2003-04 school year, a committee consisting of the state superintendent, the chairpersons of the education committees in the senate and assembly and the individual chiefly responsible for the evaluation under sub. (7) shall review the progress made by each school for which an achievement guarantee contract has been entered into. The committee may recommend to the department that the department terminate a contract if the committee determines that the school board has violated the contract or if the school has made insufficient progress toward achieving its performance objectives under sub. (4) (c). The department may terminate the contract if it agrees with the committee's recommendation.

118.43(6)
(6) State aid.

118.43(6)(a)

(a) In this subsection, "amount appropriated" means the amount appropriated under s. 20.255 (2) (cu) in any fiscal year less $250,000.

118.43(6)(b)
(b) From the appropriation under s. 20.255 (2) (cu), the department shall pay to each school district that has entered into a contract with the department under this section an amount determined as follows:

118.43(6)(b)1.
1. In the 1996-97 school year, divide the amount appropriated by the number of low-income pupils enrolled in grades kindergarten and one in each school in this state covered by contracts under this section and multiply the quotient by the number of pupils enrolled in those grades in each school in the school district covered by contracts under this section.

118.43(6)(b)2.
2. In the 1997-98 school year, divide the amount appropriated by the number of low-income pupils enrolled in grades kindergarten to 2 in each school in this state covered by contracts under this section and multiply the quotient by the number of pupils enrolled in those grades in each school in the school district covered by contracts under this section.

118.43(6)(b)3.
3. In the 1998-99 school year, divide the amount appropriated by the sum of the number of low-income pupils enrolled in grades kindergarten to 3 in each school in this state covered by contracts under sub. (3) (a) and the number of low-income pupils enrolled in grades kindergarten and one in each school in this state covered by contracts under sub. (3) (am) and multiply the quotient by the number of pupils enrolled in those grades in each school in the school district covered by contracts under this section.

118.43(6)(b)4.
4. In the 1999-2000 school year, divide the amount appropriated by the sum of the number of low-income pupils enrolled in grades kindergarten to 3 in each school in this state covered by contracts under sub. (3) (a) and the number of low-income pupils enrolled in grades kindergarten to 2 in each school in this state covered by contracts under sub. (3) (am) and multiply the quotient by the number of pupils enrolled in those grades in each school in the school district covered by contracts under this section.

118.43(6)(b)6.
6. In the 2000-01 school year, $2,000 multiplied by the number of low-income pupils enrolled in grades eligible for funding in each school in the school district covered by contracts under sub. (3) (a) and (am). After making these payments, the department shall pay school districts on behalf of schools that are covered by contracts under sub. (3) (ar) an amount equal to $2,000 multiplied by the number of low-income pupils enrolled in grades eligible for funding in each school in the school district covered by contracts under sub. (3) (ar). In making these payments, the department shall give priority to schools that have the highest percentage of low-income pupil enrollment and shall also ensure that it fully distributes the amount appropriated.

118.43(6)(b)7.
7. In the 2001-02 and 2002-03 school years, $2,000 multiplied by the number of low-income pupils enrolled in grades eligible for funding in each school in the school district covered by contracts under sub. (3) (am) and by renewals of contracts under sub. (2) (g). After making these payments, the department shall pay school districts on behalf of schools that are covered by contracts under sub. (3) (ar), an amount equal to $2,000 multiplied by the number of low-income pupils enrolled in grades eligible for funding in each school in the school district covered by contracts under sub. (3) (ar).

118.43(6)(b)8.
8. In the 2003-04 and 2004-05 school years, $2,000 multiplied by the number of low-income pupils enrolled in grades eligible for funding in each school in the school district covered by contracts under sub. (3) (ar) and by renewals of contracts under sub. (2) (g).

118.43(6)(b)9.
9. In the 2005-06 and 2006-07 school years, $2,000 multiplied by the number of low-income pupils enrolled in grades eligible for funding in each school in the school district covered by renewals of contracts under sub. (2) (g); and in the 2007-08 school year and any subsequent school year, $2,250 multiplied by the number of low-income pupils enrolled in grades eligible for funding in each school in the school district covered by renewals of contracts under sub. (2) (g).

118.43(6)(d)
(d) The school board shall use the aid under this section to satisfy the terms of the contract.

118.43(6)(e)
(e) The department shall cease payments under this section to any school district if the school board withdraws from the contract before the expiration of the contract.

118.43(6m)
(6m) Rules. The department shall promulgate rules to implement and administer the payment of state aid under sub. (6).

118.43(7)
(7) Evaluation. Beginning in the 1996-97 school year, the department shall arrange for an evaluation of the program under this section and shall allocate from the appropriation under s. 20.255 (2) (cu) $250,000 for that purpose.

118.43(8)
(8) State aid for debt service.

118.43(8)(a)
(a) Beginning in the 2000-01 school year, a school district is eligible for aid under this subsection if it applies to the department for approval of the amount of bonds specified in the copy of the resolution under 1999 Wisconsin Act 9, section 9139 (2d). If the department

approves the amount before June 30, 2001, the department shall, from the appropriation under s. 20.255 (2) (cs), pay each school district that issues bonds pursuant to a referendum under 1999 Wisconsin Act 9, section 9139 (2d), an amount equal to 20% of the annual debt service cost on the bonds. This subsection does not apply to the school district operating under ch. 119.

118.43(8)(b)
(b) The department shall promulgate rules to implement and administer this subsection.

118.43 - ANNOT.
 History: *1995 a. 27; 1997 a. 27, 252; 1999 a. 9; 2001 a. 16; 2005 a. 25, 125.*

118.43 - ANNOT.
 Cross Reference: *See also ch. PI 24, Wis. adm. code.*

APPENDIX B: Classroom Assessment Scoring System

Although these [large-scale achievement test outcome studies] show that inputs matter, they are completely uninformative regarding the critical challenge of how to systematically regulate and produce effective inputs. This agnosticism with regard to understanding, assessing, and producing classroom effects is highlighted in recent debates ... . The critical questions are no longer about attributing variance in student achievement gains to classrooms, rather they involve the mechanisms through which classrooms exert their influence on children's development and how such effects can be more reliably produced and maximized. (Hamre, Pianta, Mashburn, & Downer, 2007, pp. 5-6)

A conceptual framework and key data-gathering instrument supporting analysis of the dynamic instantiation of classroom effects is the Classroom Assessment Scoring System (CLASS). CLASS, developed by Hamre & Pianta (2008), is a theoretical framework for examining learning opportunities that contribute to quality in classroom practice. It is one of the most extensively applied measures of classroom quality available, empirically tested and used within more than 4,000 preschool thru fifth grade classrooms nationwide.[16]

CLASS is based on the assumption that students are educated through proximal processes (see Bronfenbrenner & Morris, 1998, cited in Hamre & Pianta, 2007). Proximal processes are intimate micro-level connections—cycles of questioning and feedback looping between teacher and child in both social-emotional and academic veins. Distal features, variables further removed from the process of teaching and learning, such as curriculum packages and school climate, may structure opportunities for learning but are moderators of proximal processes. The real development of socio-emotional and academic knowledge occurs during instructional *interactions* in classrooms, which have the potential to enhance or impede the transmission of knowledge (Hamre & Pianta, 2007) and have been called "the defining feature of education" (Ball & Forzani, 2007). Instructional processes have been shown to be particularly important for students at risk of school failure. For example, Hamre & Pianta (2005) found that "high risk" students placed in classrooms with high levels of instructional support kept pace with "low risk" peers while those in low quality classrooms fell even further behind.

The CLASS framework was created through extensive literature review, examination of scales used in far-reaching longitudinal child studies, focus groups, and extensive piloting (CLASS MANUAL). The observation tool creates a common metric and language for comparing and discussing classroom quality across levels of schooling, bridging preschool and elementary school educational philosophies and engaging the same domains for evaluating quality learning across grade levels. CLASS does not evaluate the presence of materials, physical environment, or a given curriculum because in the early grades, materials and curriculum are well-organized within most settings. Rather, CLASS is focused on how classroom interactions function alongside the given resources.

CLASS describes 10 dimensions of classroom quality divided into 3 broader domains. The categories defined within the tool are well studied and follow the research base in

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[16] Information provided on norms includes that from a precursor to CLASS used in the NICHD SECYD study—The Classroom Observation System (COS).

educational quality literature. The categories have been validated across multiple samples, including The NICHD Study of Early Care and Youth Development and The National Center for Early Development and Learning (NCEDL) Multi-State Preschool Study and State-Wide Early Education Programs Study. The dimensions and domains measured by CLASS are shown in Table 8.

Table 8

Classroom Quality

Emotional Support	Classroom Organization	Instructional Support
Positive climate The enjoyment and emotional connection that teachers have with students as well as the nature of peer interactions	*Behavior Management* How well teachers monitor, prevent, and redirect behaviors	*Concept Development* Measures the degree to which teachers promote higher order thinking and problem solving going beyond going beyond fact and recall activities with children
Negative Climate Reflects the expressed negativity such as anger, hostility, or aggression expressed by teachers and/or students in the classroom	*Productivity* Considers how effectively teachers manage time and create classroom routines that maximize learning time in the classroom	*Quality of Feedback* Considers how teachers extend student learning through their responses & participation in activities
Regard for Student Perspectives Captures the degree to which teachers' interactions with students & classroom activities place an emphasis on students' interests, motivations & points of view	*Instructional Learning Formats* Focuses on how teachers engage students in activities & facilitate activities so that student learning is maximized	*Language Modeling* Reflects the extent to which teachers facilitate & encourage student language
Teacher Sensitivity Reflects the teacher's responsivity to individual students' academic & emotional needs		

Emotional Support, drawing its theoretical base from attachment theory and self-determination theory, posits that students who are socially connected and motivated show constructive patterns of development in both social and academic domains. The four dimensions classified within Emotional Support are Positive Climate, Negative Climate, Regard for Student Perspectives, and Teacher Sensitivity.

Classroom Organization is derived from research on self-regulated learning and refers to the development of constructive and active control of thought and behavior within the support and limitations of a given context. Three dimensions measured within Classroom Organization are Behavior Management, Productivity, and Instructional Learning Formats.

Instructional Support, rooted in research in the cognitive sciences, emphasizes organizing and understanding facts as usable knowledge, the use of adults to scaffold language and cognitive development, and development of metacognitive awareness. Three dimensions within Instructional Support are Concept Development, Quality of Feedback, and Language Development.

CLASS ratings are given for each dimension on a 1 to 7 scale, with 1-2 marked as low quality, 3-5 as moderate quality, and 6-7 as high quality. Across thousands of U.S. classrooms quality was rated as moderate for Emotional Support and Classroom Organization and low for Instructional Support (Hamre & Pianta, 2007). Contrasting structural and process approaches, Pianta, Belsky, Houts, Morrison, & NICHD ECCRN (2007) found that CLASS ratings for a group of teachers who met the U.S. Department of Education standards of "highly qualified," were moderate at best. Classroom quality for these teachers showed limited instructional content, restricted grouping structures, and limited methods of teaching reasoning and analysis often explicated in state standards for teaching and learning.

APPENDIX C: 2006-7 Case Study Materials

2006-7 Teacher Interview One (Fall)

[preparation for interview: have on hand class list, copy of class schedule]

Thanks so much for agreeing to work with our project again. After doing fieldwork with 9 very different SAGE schools, this year we are narrowing our focus to 3 schools that seem to have high levels of implementation of the SAGE program elements with good results for student achievement. What I'd like to do today is to talk about each of the SAGE pillars and their use at your school.

1. What is going on this year at your school?

    a) How about your classroom in particular?

Class size reduction

2. In addition to the number of students assigned to your class, other factors shape class size. I'd like to talk about your schedule, the schedules of support staff working with your students, and how those come together (go over schedule, writing in times for support staff and pullout services).

    a) How does this schedule impact how you organize instruction? (focus on blocks of time, support staff & pullout schedules, student needs, school goals – like shared literacy block)

Curriculum

3. Reading gets lots of attention in education right now. Can you describe your approach to reading instruction for different types of kids? [Have teacher categorize kids according to skill level.] How do plan reading for [low kid] and how do you plan it for [high kid].

Professional development & teacher evaluation

4. What are your goals this year to improve your teaching? What kinds of support do you need to meet them? What kinds of support will you get? How will you know if you are successful?

Lighted schoolhouse

5. When we talked with teachers last year we got a sense of activities used to connect with families but got less of a sense of WHY they were used. Rather than talk about "stuff" that people do, I'd like you to reflect on the needs that generate the stuff.

    a) What do families need to support their child and your teaching?

    b) This relationship is a 2 way street. What do you need to support families so they can support their child?

    c) What does the school need to do to support families and their work?

Etc.

6. There are always questions we don't know to ask or things that you want to share with us. Is there something I should know about your work at [your school] and its SAGE implementation that would help me understand things?

2006-7 Teacher Interview Two (Mid-Year)

1. How would you describe your group of students this year?

2. You don't do whole class instruction all the time – can you talk about how you group students in instruction?

   a. (select a recent instructional example of grouping in the class) Last time I was here, you were doing a reading group with S1, S2, S3, S4 while the rest of the group was at their desks working on their spelling. I'm interested in how you put your groups together – who works with whom, how you manage their activities, what things you have to consider, how you keep things going in the flow of teaching. How are these decisions different for say reading and social studies?

Teachers will be shown pictures of their classroom space

3. One thing that has been very clear to us is that classroom spaces shape how you can teach. That's especially true in SAGE schools where space is often at a premium. Space is an instructional tool and children's learning is shaped in the ways that they can use space in different learning situations. We are especially interested in three areas:

   • your use of space in group activities such as circle time/morning message/calendar sessions
   • your use of space for "seat work" activities both as solo and group endeavors
   • your use of space for center based learning

   I would like to show you photographs of children engaged in large group sessions, seat work activities and centers based lessons and then ask how you manage space during these parts of your day and how SAGE shaped those decisions.

4. I'd like you to think of every type of assessment you use in your classroom – both formal & informal—& just list them. [Interviewer chooses 3 from the list across types of assessment]. I'd like you to tell me about 1) what the purpose is 2) who they are for 3) give me examples of how they get used to make decisions

5. If there were a SAGE coach that could come work with you to fine-tune teaching strategies, what would you want help with?

6. Other issues/questions I should ask about?

2006-7 Teacher Interview Three (Spring)

Thanks for taking the time to meet with me. I'd like to spend our time together looking over the year in the context of the SAGE pillars. Again, let's begin generally.

1. What have been the challenges & successes this year in your classroom? In your school?

2. What do you think is the ideal SAGE programming for the class size component –what should we consider the "gold standard"? If you were to justify it in terms of goals and outcomes, what would they be?
   a. How could it be implemented at [your school]?
   b. What pieces of it do you have in your classroom? What is standing in the way of the ideal practice? What needs to change?

3. In the first interview, I asked you to describe your approach to reading. That provided lots of insight – can we use the same approach for mathematics? How would you describe your approach to math instruction for different types of kids? [categorize students by skills level]
   a. How do plan math for [low kid] and how do you plan it for [high kid].

4. Looking back over this year, what things have made you a better teacher? (probes: planning time, work w/ colleagues, PD, what)
   a. In the beginning of the year, you said you had [refer to fall interview] as a goal to improve your teaching. How did that go?
   b. Looking ahead to next year, what kinds of support would you like? How will you get it?

5. How have you worked to connect with families this year? How has that gone?
   a. What has the school done this year to connect with families? How did it go?
      i. What needs to be done?
   b. What kinds of efforts have families made either individually or as a group to strengthen their relationship with the school.

6. We're nearing the end of another school year, and of this phase of the SAGE project. What do I need to know that I haven't asked you?

2006-7 Principal Interview One (Fall)

Thanks again for agreeing to continue with this project. We've narrowed our focus this year, moving from 9 schools to just 3 that have high levels of implementation and good student outcomes. What I'd like to do is to explore this year at [your school] in the context of the 4 SAGE pillars.

1. What is going on at [your school] this year? What are the major things you are focusing on this year? Staffing?

2. Describe how you implemented the class size reduction piece of SAGE this year.

   a. What was the reasoning behind it? How do you think it's working?

3. What is your role in supporting curriculum at [your school]? Can you give me some examples of how you have done that this year?

4. What types of information do you use to help teachers in their instruction? What is the role of observation, assessment information, hallway talk?

   a. Every school has a range of teachers who vary in terms of their strength. How do you work with a really strong teacher to support her instruction? How do you work with someone who is struggling?

      i. In real time (ongoing modeling, feedback) and in a more systemic way?

      ii. How do you help teachers to support each other?

   b. What is the role of professional development?

5. One thing we noticed last year was that there was sophisticated planning and alignment between goals and outcomes in many schools to increase student achievement. This kind of systematic approach isn't evident in school work with families. [Recall a recent home-school event] How was this activity connected to home-school relations goals and to the broader goals of the school?

   a. What do you see as the role of families in the work of the school? and what is the role of the school in the work of families? How does programming at [your school] do that in practice?

6. What types of things should I be looking into this year for the SAGE project?

2006-7 Principal Interview Two (Spring)

We're moving toward the end of the school year – thanks for meeting with me at this busy time of year.

1. What do you see as the major trends in teaching at [your school]? Can you give me an example?

    a. What were the major trends in learning? Can you give an example?

    b. How can you connect to the SAGE program?

2. What do you think is the ideal SAGE programming for the class size component –what should we consider the "gold standard"? If you were to justify it in terms of goals and outcomes, what would they be?
    a. How could it be implemented at [your school]?
    b. What pieces of it do you have? What is standing in the way of the ideal practice? What needs to change?

3. What would be your overview of your work this year to organize professional development & to give staff feedback on their teaching? How would you evaluate how things went?

4. The Lighted Schoolhouse has 2 types of home-school activities: activities that support families by connecting them with resources in the community and activities specifically for students outside of the school day. How do you currently address those? (include funding and other initiatives)

    a. Let's imagine that you were starting from scratch to design those elements and resources could be found to make them available. What would they look like? What is in the way to make that a reality at [your school]?

5. What kinds of support do you receive from the state to implement SAGE?

    a. What kinds of support do you receive from your district?

    b. What kinds of support do you need?

6. If you could have input into the direction this research goes in the future, what would you suggest? Should we continue to work at [your school]? What things should we be looking at?

Teacher Consent Form

Dear Teacher,

I would like to take this opportunity to thank you for your previous participation in the SAGE evaluation project. We learned so much from our work with you over the last two years. I'm pleased to report that DPI funding for the project has continued and that we will be returning to a select number of schools for the 2006-7 school year and that your school is in that group. I would like to invite you to continue in the project, which will explore instructional practices in SAGE classrooms. This year we hope to get more in-depth descriptions of the relationship between SAGE and classroom practice. The project involves the following activities:

- Seven half day classroom observations of instruction across content areas to further define the use of SAGE resources in teaching. We will describe the classroom environment with a standardized environment tools and with narrative field notes. One set of lessons, identified by you as typical of your teaching, will be videotaped in the second semester.
- Observations of professional development, planning time, and collaboration with colleagues.
- One observation of some activity that connections home and school.
- Two interviews, one in the fall and one in the spring, about the decision making that goes into your instructional practice. The interviews typically take approximately 60 minutes and will be scheduled at your convenience during non-school hours.
- Collection of documents that represent curriculum, professional development, assessment, scheduling, and home school relations.
- You will be asked to do some record keeping of your practice this year, with specific attention to communication with families.

I would like to record our interviews with you and then transcribe them for later analysis. Interview files will be destroyed after the contents are transcribed. Only researchers involved in this project will have access to the recordings unless you grant permission for them to be presented to scientific or educational audiences (e.g., for illustrative purposes, see below). Responses will be held in the strictest of confidence. Any reports about the project will contain no identifying information. No information generated in the project will be shared with supervisors or become part of your permanent employment record.

There are no risks to participating in this study. Information from the project will be used to better organize resources for teaching and creation of effective professional development. I hope your participation will provide a unique opportunity to share your teaching and to receive documentation of your practice.

Your participation is **<u>completely voluntary</u>** and you may withdraw at any time prior to the completion of the project without penalty or loss of any benefits to which you are entitled. You also may refuse to answer specific questions for any reason. You will receive $150 at the end of the project year for your willingness to be interviewed and to keep records regarding your instructional practice. The honorarium will be provided to you in a personal check from the Wisconsin Center for Education Research (WCER).

I am happy to answer any questions you may have now or in the future. You may call me at 608 262-7435 or email me at graue@education.wisc.edu. If you have questions about your rights as a research participant please contact the UW-Madison Education Research Institutional Review Board at 608 262-9710 or kwalsh@education.wisc.edu.

If you agree to participate, please complete the form on this page, keep one copy of the letter and return a signed copy to me at the above address at your earliest convenience. Thanks in advance for considering this request and I look forward to speaking to you soon.

Sincerely,

Beth Graue
Professor

I have read the above and agree to participate in this study.

Agree _____ Do not agree _____

I give you permission to audiotape our interviews.

Agree _____ Do not agree _____

I give you permission to videotape a set of typical lessons.

Agree_____ Do not agree_____

I grant permission for you to present the videotapes to educational or scientific audiences.

Agree_____ Do not agree_____

_____

Printed Name   Signature   Date

Principal Consent Form

Dear Principal,

I would like to take this opportunity to thank you for your previous participation in the SAGE evaluation project. We learned so much from our observations during 2004-5 and our conversations last year. I'm pleased to report that DPI funding for the project has continued and that we will be returning to a select number of schools for the 2006-7 school year and that your school is in that group. I would like to invite you to continue in the project, which will explore instructional practices in SAGE classrooms and administrative decision making in SAGE schools. This year we hope to get more in depth descriptions of the relationship between SAGE and educational practice. The project involves the following activities at your school:

- Seven half day classroom observations of instruction in 3 classrooms grade K-3 across content areas to further define the use of SAGE resources in teaching. We would return to classrooms studied in 2004-5 if possible. We will describe the classroom environment with standardized environment tools and with narrative field notes. In addition, in the spring, we will videotape a set of lessons identified by the teachers as typical of their practice.
- Observations of professional development, planning time, and collaboration with colleagues.
- One observation per classroom of some activity that connections home and school.
- Two teacher interviews, one in the fall and one in the spring, about the decision making that goes into instructional practice. The interviews typically take approximately 60 minutes per time.
- Two principal interviews, in fall and spring, about decision making that supports instructional practice and SAGE implementation at your school. These interviews typically take 60 to 90 minutes and will be scheduled at a time that is convenient for you.
- Collection of documents that represent curriculum, professional development, assessment, scheduling, and home school relations.

I would like to record our interviews and then transcribe them for later analysis. Interview files will be destroyed after the contents are transcribed. Responses will be held in the strictest of confidence. Any reports about the project will contain no identifying information. No information generated in the project will be shared with supervisors or become part of your permanent employment record.

There are no risks to participating in this study. Information from the project will be used to better organize resources for teaching and creation of effective professional development. I hope your participation will provide a unique opportunity to share your leadership and to receive documentation of your practice.

Your participation is completely voluntary and you may withdraw at any time prior to the completion of the project without penalty or loss of any benefits to which you are entitled. You may refuse to answer specific questions for any reason. You will receive $50 for your participation at the end of the project year.

I am pleased to answer any questions you may have now or in the future. You may call me at 608 262-7435 or email me at graue@education.wisc.edu. If you have questions about your rights

as a research participant please contact the UW-Madison Education Research Institutional Review Board at 608 262-9710.

If you agree to participate, please complete the form on this page, keep one copy of the letter and return a signed copy to me at the above address at your earliest convenience. Thanks in advance for considering this request and I look forward to speaking to you soon.

Sincerely,

Beth Graue
Professor

I have read the above and agree to participate in this study.

Agree _____ Do not agree _____

I give you permission to audiotape me.

Agree _____ Do not agree _____

_____
Printed Name

_____   _____
Signature   Date

Parent Consent for General Participation

Class size reduction in practice: How, when & why SAGE works
Principal Investigator: Elizabeth Graue (phone: 608 262-7435, email:
graue@education.wisc.edu)

DESCRIPTION OF THE RESEARCH
Your child is invited to participate in a research study about teaching and learning in classrooms
participating in the Student Achievement Guarantee in Education (SAGE) program that reduces
class size. The purpose of the research is identify teaching practices that improve student
learning. This study will include teachers and students at your child's school. Your child has been
asked to participate because s/he is a student in a SAGE class.

The research will take place in your child's classrooms during regular learning activities. It
involves seven observations of teaching. Later in the year we will videotape typical lessons and
will ask permission for your child's participation prior to any taping.

WHAT WILL MY PARTICIPATION INVOLVE?
If you allow your child to be part of the study, we will observe him/her in normal classroom
activities seven times across the school year.

ARE THERE ANY RISKS TO ME?
We don't anticipate any risks to you from participation in this study.

ARE THERE ANY BENEFITS TO ME?
We don't expect any direct benefits to you from participation in this study.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?
This study is anonymous. Neither your child's name or any other identifiable information will be
recorded.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?
You may ask any questions about the research at any time. If you have questions about the
research you should contact the Principal Investigator Elizabeth Graue at 608 262-7435.

If you have questions about your rights as a research subject you should contact the Education
Research IRB at (608) 262-9710, edirb@education.wisc.edu.

Your participation is completely voluntary. If you decide not to participate or to withdraw from
the study it will have no effect on your child's grades at school.

Your signature indicates that you have read this consent form, had an opportunity to ask any
questions about your participation in this research and voluntarily consent to participate. You
will receive a copy of this form for your records.

Because we are observing typical classroom activity, you can let us know if you DO NOT wish us to interact with or take any notes of your child's activity in school. If we don't hear from you, I will assume that you agree to this level of participation.

_____PLEASE EXCLUDE MY CHILD FROM OBSERVATIONS

Name of child (please print):_____

Parent Signature_____

Parent Printed Name_____

Date_____

Parent Consent for Videotaping

Class Size Reduction in Practice: How, When, & Why SAGE Works

Principal Investigator: Beth Graue (608 262-7435, graue@education.wisc.edu)

DESCRIPTION OF THE RESEARCH

In the fall I sent you a letter informing you about research in your child's classroom that explores teaching and learning in small classes. As mentioned in that letter a researcher has been visiting your child's class to observe classroom activity. The purpose of the research is to identify teaching strategies that work in small classes.

We would now like to invite your child to participate in videotaping of 2 typical lessons. Only the researchers will see the tapes. You may also agree to allow excerpts of the tapes to be shown to scientific or education audiences.

WHAT WILL THE STUDY INVOLVE: If your child takes part, s/he may be videotaped during regular classroom instruction including the teacher and students involved in activities.

ARE THERE ANY RISKS TO ME?
We don't anticipate any risks to you from participation in this study.

ARE THERE ANY BENEFITS TO ME?
We don't expect any direct benefits to you from participation in this study.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

A name other than your child's name will be used to identify him/her. Only children whose parents have given permission for them to be videotaped will be included in the recordings and we will digitally remove any children from the recording who have not provided permission.

If your child participates in this study, we would like to be able to quote him/her directly without using his/her name.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?
You may ask any questions about the research at any time. If you have questions about the research you should contact the Principal Investigator Beth Graue at 608 262-7435.

If you have questions about your rights as a research subject you should contact the Education Research IRB at (608) 262-9710, edirb@education.wisc.edu.

Your participation is completely voluntary. If you decide not to participate or to withdraw from the study it will have no effect on your child's grade in this class.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate in the videotaping. You will receive a copy of this form for your records.

Name of child (please print):_____

_____   _____   _____
              Parent signature   Printed name   Date

_____ I agree to allow excerpts of the videotapes to be shown to scientific or education audiences.

_____   _____
              Parent signature   Date

APPENDIX D: 2006-7 Six School Follow-up Study Materials

Teacher Interview Protocol

Overview
1. What have been the challenges & successes this year in your classroom? In your school?

Class Size Reduction
2. What do you think is the ideal SAGE programming for the class size component –what should we consider the "gold standard"? If you were to justify it in terms of goals and outcomes, what would they be? How is it implemented in terms of students assigned to classrooms and in terms of how that number is used in instruction by a teacher?
   a. How could it be implemented at [your school]?
   b. What pieces of it do you have in your classroom? What is standing in the way of the ideal practice? What needs to change?

Rigorous Curriculum

3. I'd like you to think of every type of assessment you use in your classroom – both formal and informal – and just list them. [Interviewer chooses 3 from the list across types of assessment]. I'd like you to tell me about 1) what the purpose is 2) who they are for 3) give me examples of how they get used to make decisions.

Professional development & teacher evaluation
4. What are your goals this year to improve your teaching? What kinds of support do you need to meet them? What kinds of support will you get? How will you know if you are successful?

5. If there were a SAGE coach that could come work with you to fine-tune your teaching, what would you want help with?

Lighted Schoolhouse
6. The lighted schoolhouse component of SAGE is designed to strengthen links between families and schools, building a strong social network. What do families need to support their child and your teaching? What do they get here?
   c. What do you need to support families? What do you get here?
   d. What does the school need to support families and you? What is provided to the school?

General
7. Is there anything else I should know about your work in the SAGE program that I haven't asked you?

Principal Interview Protocol

Thanks again for agreeing to continue with this project. While we've narrowed our fieldwork to three schools from our initial study, we didn't want to lose the connection we had with your school. I would like to talk with you about issues related to the 4 SAGE pillars. But I'd like to start with a kind of overview –

1. What is going on at [your school] this year? What are the major things you are focusing on this year? Staffing?

Class size reduction

2. Describe how you implemented the class size reduction piece of SAGE this year.

    a. What was the reasoning behind it? How do you think it's working?

3. What do you think is the ideal SAGE programming for the class size component –what should we consider the "gold standard"? If you were to justify it in terms of goals and outcomes, what would they be?

    b. How could it be implemented at [your school]?
    c. What pieces of it do you have? What is standing in the way of the ideal practice? What needs to change?

Curriculum

4. What is your role in supporting curriculum at [your school]? Can you give me some examples of how you have done that this year?

Professional Development

5. What have you done this year to organize professional development & to give staff feedback on their teaching? How would you evaluate how things went?

    d. Every school has a range of teachers who vary in terms of their strength. How do you work with a really strong teacher to support her instruction? How do you work with someone who is struggling?

        i. How do you help teachers to support each other?

Lighted Schoolhouse

6. The Lighted Schoolhouse has 2 types of home-school activities: activities that support families by connecting them with resources in the community and activities specifically for students outside of the school day. How do you currently address those? (include funding and other initiatives)

    e. Let's imagine that you were starting from scratch to design those elements and resources could be found to make them available. What would they look like? What is in the way to make that a reality at [your school]?

7. What should I be asking you about SAGE implementation that I haven't thought to ask?

Participant Consent Form

UNIVERSITY OF WISCONSIN- MADISON

Research Participant Information and Consent Form

Title of the Study: Class size reduction in practice: How, when & why SAGE works

Principal Investigator: Beth Graue (phone: 608 262 7435) (email: graue@education.wisc.edu)

DESCRIPTION OF THE RESEARCH

You are invited to participate in a research study about administrative and instructional practices in SAGE schools.

You have been asked to participate because of your past participation in this evaluation of the SAGE project.

The purpose of the research is to describe practices in SAGE schools that enhance student achievement.

This study will include schools that have participated in the SAGE evaluation during the period of 2004-6.

This research will be conducted in your school/classroom and will involve interviews about SAGE implementation scheduled at a time that does not conflict with instructional activity. In addition to the interviews, a trained researcher will observe teacher's classrooms for one half day at a time agreed upon by participants. All SAGE teachers in a school will be asked to complete a survey of their implementation of the SAGE program.

Audio tapes will be made of your participation the interview. Audio recordings of our interviews will only be heard by the interviewer and the project transcriber. Recordings will be destroyed after they are transcribed.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research you will be asked to participate in an interview about your participation in the SAGE program at a time that does not conflict with instructional responsibilities. The interview should take approximately 60-75 minutes of your time. Teachers will be asked to allow a researcher to observe one half day of instruction. Finally all SAGE teachers in your school will be asked to complete a teacher survey which is thought to take about 30 minutes to complete. Time outside of instruction will be less than 2 hours.

ARE THERE ANY RISKS TO ME?

We don't anticipate any risks to you from participation in this study.

ARE THERE ANY BENEFITS TO ME?

We hope that it is beneficial for you to reflect on your experience in the SAGE program.

WILL I BE COMPENSATED FOR MY PARTICIPATION?

You will receive $25.00 for participating in this study.

If you do withdraw prior to the end of the study, you will receive a prorated amount of the $25.00

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

Participants' identities will be protected through the use of pseudonyms.

If you participate in this study, we would like to be able to quote you directly without using your name, If you agree to allow us to identify you in publications, please initial the statement at the bottom of this form.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after you leave today you should contact the Principal Investigator Beth Graue at 608 262 7435.

If you have questions about your rights **as** a research subject you should contact the Education Research IRB at (608) 2629710, edirb@education.wisc.edu.

Your participation is completely voluntary. If you decide not to participate or to withdraw from the study it will have no effect on any services or treatment you are currently receiving.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. You will receive a copy of this form for your records.

Name of Participant (please print): _____

_____
Signature   Date

_____ I give my permission to be quoted directly in publications without using my name.

APPENDIX E: 2006-7 Teacher Survey

SAGE Evaluation Study

Teacher Survey 2007

The Wisconsin Center for Education Research (WCER) under a contract from the Wisconsin Department of Public Instruction is studying the effectiveness of the Student Achievement Guarantee in Education (SAGE) program. We are interested in learning about teachers' experiences in SAGE grades (kindergarten through grade 3).

Your participation in this survey is voluntary. If you choose to participate, the information you provide will be kept confidential. No one outside of WCER will ever have access to your individual responses. No individuals will be identified in the research reports, and information will not be reported to the district or the Department pf Public Instruction in such a way that would allow connecting your responses to you. If there is a question you do not wish to answer, simply skip it.

If you have any comments about this survey or the SAGE program that you would like to make, please write them on the back of this page.

When you have completed the survey, please put it in the envelope provided and seal the flap. The envelope will be collected and returned directly to the WCER.

Questions? Please call Beth Graue at the Wisconsin Center for Education Research (608 262-7435, or megraue@wisc.edu).

Section 1: Background

1. Including this school year, how many years have you:

a. taught at this school	_____	years
b. taught in this district	_____	years
c. worked as a teacher	_____	years

2. What grades are you teaching this year? (please circle all that apply)

5K	1	2	3

Section II: Class Type and Size

3. How many students are you assigned to teach this year? _____

4. Which of the following best describes your current teaching assignment?

___	a. I teach by myself in a regular education classroom
___	b. I teach a group of students in a divided classroom, in which another teacher teaches a different and separate group
___	c. I team teach with another teacher in the same classroom
___	d. I teach in my own classroom, but an additional part-day teacher comes in for reading, language arts, or mathematics instruction to reduce class size for those subjects
___	e. I teach in my own classroom, but an additional part-day teacher takes children for part of the day for reading, language arts, or mathematics instruction to reduce class size for those subjects

IF YOU TEAM TEACH WITH ANOTHER SAGE TEACHER, PLEASE GO ON TO QUESTION 5 BELOW. OTHERWISE SKIP TO QUESTION 8 ON THE NEXT PAGE

5. IF YOU TEAM TEACH, during a typical day, for what percent of the time:

a.	Do both teachers lead or teach the whole class at the same time?	___%
b.	Does one teacher lead teach the whole class while the other does administrative work?	___%
c.	Do both teachers work with small groups at the same time?	___%
d.	Does one teacher present or lead discussion with the whole class while the other works with individual students?	___%
e.	Does one teacher do administrative work while the other supervises free play or work at centers?	___%
f.	Does one teacher work with a small group while the other works with the rest of the class as a whole?	___%
g.	Do students work by themselves or do seatwork?	___%
	Time % should add to	100%

6. When one member of your team is sick or otherwise not able to be at school, how often is that teacher replaced with a substitute?

__ Never   __ About once or twice per month

__ About once or twice per school year   __ About once per week

__ About once or twice per semester   __ More than once per week

7. When a teacher from another classroom is unable to be at school, how often do you or your co–teacher move to that classroom to cover the absence?

__ Never   __ About once or twice per month

__ About once or twice per school year   __ About once per week

__ About once or twice per semester   __ More than once per week

Section III: Curriculum

8. In a typical day, how much time do the children spend in the following activities? CIRCLE ONE NUMBER ON EACH LINE. DO NOT INCLUDE LUNCH OR RECESS BREAKS.					
	No Time	½ hour or less	About 1 hour	About 2 hours	3 hours or more
Teacher–directed whole class activities	0	1	2	3	4
Teacher-directed small group activities	0	1	2	3	4
Teacher-directed individual activities	0	1	2	3	4
Child-selected activities	0	1	2	3	4

9. In your class so far this year, how often have you been able to:	Almost Never	Rarely	Occasionally	Frequently	Almost Always
help students apply concepts to new situations, experiences, and real-world events?	1	2	3	4	5
give students the opportunity to share their ideas?	1	2	3	4	5
go with the flow of students' ideas and interests?	1	2	3	4	5
ask open-ended questions that allow you to extend children's responses?	1	2	3	4	5
use feedback that focuses on the process of learning rather than just getting the correct answer?	1	2	3	4	5
use formal & informal assessment to see how students are progressing?	1	2	3	4	5
provide individualized feedback to students based on your assessments of their learning?	1	2	3	4	5
spend time conversing with students in order to get to know them?	1	2	3	4	5

9. In your class so far this year, how often have you been able to:	**Almost Never**	**Rarely**	**Occasionally**	**Frequently**	**Almost Always**
spend time with individual students seeking your support and guidance?	1	2	3	4	5
use social skills instruction, consistently enforced classroom rules, and positive classroom management techniques that prevent ongoing behavior problems?	1	2	3	4	5
How often does student misbehavior interfere with your teaching?	1	2	3	4	5

Section IV: Family & Community

10. During the school year, how frequently do you:	Never or Not Applicable	About once per year	About once per semester	About once per month	Once per week or more
a. Communicate with families about their child's progress	1	2	3	4	5
b. Communicate with families about classroom activities	1	2	3	4	5
c. Communicate with families about school activities	1	2	3	4	5
d. Develop activities to extend learning into the home	1	2	3	4	5
e. Communicate with families about the support they provide through parenting	1	2	3	4	5
f. Work with families on school governance (e.g., school councils, parent committees)	1	2	3	4	5
g. Provide information about recreational activities in school or community	1	2	3	4	5
h. Provide opportunities for families to volunteer to support classroom work	1	2	3	4	5
i. Participate in after hours activities with families	1	2	3	4	5
j. Connect classroom families by providing contact information	1	2	3	4	5
k. Help families access resources in school or community	1	2	3	4	5

Section V. Teacher Professional Development and Evaluation

11. Planning time. Please try to estimate the frequency and duration of the time you have to plan:	Frequency						Duration		
	Once or twice per year or	About Every Other Month	About Once Per Month	About Once Per Week	2-3 Times Per Week	4-5 Times per Week	Less than 20 min	30-50 minutes	! hour or
a. by yourself	1	2	3	4	5	6	1	2	3
b. with co-teacher if teaming	1	2	3	4	5	6	1	2	3
c. With the other teachers providing instruction or services to your particular students	1	2	3	4	5	6	1	2	3
d. with teachers teaching the same grade or subject	1	2	3	4	5	6	1	2	3

12. At some point during the last 3 years, did you	No/Not at all	A little	To a moderate extent	To a great extent
a. prepare a professional development plan?	1	2	3	4
b. explicitly link professional development activities to improving student achievement in your plan?	1	2	3	4
c. evaluate your success in meeting the goals of your plan?	1	2	3	4

13. How often during the school year does your principal observe your teaching?   _____ times per year

14. How often during the school year does your principal go over student assessment scores with you?   _____ times per year

15. Including this school year, have you have participated in any of the types of professional development listed below during the last 3 years?
(Please check all that apply)

Topic	Presentations or workshops	University courses	Extended programs (e.g. summer institutes)	Job-embedded (study groups, peer coaches, mentors)	Please check if this topic was part of your PD plan
a. Strategies for teaching specific content?	☐	☐	☐	☐	☐
b. Working with English language learners	☐	☐	☐	☐	☐
c. Working with students with disabilities	☐	☐	☐	☐	☐
d. Classroom management	☐	☐	☐	☐	☐
e. Differentiating instruction	☐	☐	☐	☐	☐
f. Staff collaboration	☐	☐	☐	☐	☐
g. Small class teaching strategies	☐	☐	☐	☐	☐
h. Team teaching	☐	☐	☐	☐	☐
i. Family involvement or Home-school relations	☐	☐	☐	☐	☐
j. Specific curricula like Success For All or Direct Instruction	☐	☐	☐	☐	☐

16. How useful would you find additional professional development on each the following topics?	**Not Useful**	**Some-what**	**Moderately Useful**	**Very Useful**
SAGE program theory & elements	1	2	3	4
Strategies for small group teaching	1	2	3	4
Merging "best practice" in reading/math with strategies for teaching small groups	1	2	3	4
Team teaching	1	2	3	4
Solving space problems in SAGE schools	1	2	3	4
Strengthening relationships with families	1	2	3	4

Thank you for completing this survey!

APPENDIX F: 2007 End of Year Report Questions

District and School Information

District Name	
District Code	
School Name	
School Code	

SAGE Contacts (Number of contacts -)

First Name		
Last Name		
Phone		
Email		
Role		

I. Class Size

Class Size - The statutes (s. 118.43(3)(a)) require the school board for each participating school to reduce class size to 15 students in grades kindergarten to 3. The law defines class size as the number of pupils assigned to a regular classroom teacher.

1. Did your school include any **multi-grade sections** (i.e., K and 1st, 1st and 2nd, 2nd and 3rd) for the 2006-07 school year?

	K + 1	1 + 2	2 + 3
a. How many multi-grade classes or sections have one full-time teacher for up to 15 students?			
b. How many multi-grade classes or sections have one full-time teacher for 16 or 17 students?			
c. How many multi-grade classes or sections have 2 full-time teachers for up to 30 students?			
d. For how many multi-grade classes or sections was a class size reduced for only reading, language arts, and math instruction?			

2. Did your school have any **Kindergarten** SAGE sections in the 2006-07 school year?

a. How many total sections did you have?	
b. Of these sections for how many was class size reduced to 15 students per 1 teacher.	
c. Of these sections for how many was class size reduced to 16/17 students per 1 teacher.	
d. Of these sections for how many was class size reduced by having 2 teachers for 30 students.	
e. For how many sections was class size reduced for only reading, language arts, and math instruction?	
f. If the summation of your answers for questions **b** through **e** does not equal the total listed in **a**, please enter the number of sections that do not fit any of the **b** through **e** alternatives.	

3. Did your school have any **First Grade** SAGE sections in the 2006-07 school year?

a. How many total sections did you have?	
b. Of these sections for how many was class size reduced to 15 students per 1 teacher.	
c. Of these sections for how many was class size reduced to 16/17 students per 1 teacher.	
d. Of these sections for how many was class size reduced by having 2 teachers for 30 students.	
e. For how many sections was class size reduced for only reading, language arts, and math instruction?	
f. If the summation of your answers for questions **b** through **e** does not equal the total listed in **a**, please enter the number of sections that do not fit any of the **b** through **e** alternatives.	

4. Did your school have any **Second Grade** SAGE sections in the 2006-07 school year?

a. How many total sections did you have?	
b. Of these sections for how many was class size reduced to 15 students per 1 teacher.	
c. Of these sections for how many was class size reduced to 16/17 students per 1 teacher.	
d. Of these sections for how many was class size reduced by having 2 teachers for 30 students.	
e. For how many sections was class size reduced for only reading, language arts, and math instruction?	
f. If the summation of your answers for questions **b** through **e** does not equal the total listed in **a**, please enter the number of sections that do not fit any of the **b** through **e** alternatives.	

5. Did your school have any **Third Grade** SAGE sections in the 2006-07 school year?

a. How many total sections did you have?	
b. Of these sections for how many was class size reduced to 15 students per 1 teacher.	
c. Of these sections for how many was class size reduced to 16/17 students per 1 teacher.	
d. Of these sections for how many was class size reduced by having 2 teachers for 30 students.	
e. For how many sections was class size reduced for only reading, language arts, and math instruction?	
f. If the summation of your answers for questions **b** through **e** does not equal the total listed in **a**, please enter the number of sections that do not fit any of the **b** through **e** alternatives.	

6. Of the K though Grade 3 classes taught in this building in the 2006-07 school year, what percent were taught by a first year teacher? Enter the whole number percent into the space provided (i.e. 85, NOT 0.85)

7. What is the approximate percentage of Grade K-3 students that enroll in this school at the beginning and maintain their enrollment to the end of the school year? Enter the whole number percent into the space provided (i.e. 85, NOT 0.85)

8. What is the approximate percentage of Grade K-3 students that enroll in this school at some point in the year after the third Friday in September count date? Enter the whole number percent into the space provided (i.e. 85, NOT 0.85)

II. Education and Community Services

Education and Community Services - The statutes (s. 118.43(3)(b)) require the board for each participating school to keep the school open every day from early in the morning until late in the day as specified in the contract.

9. **Building Hours** - In the boxes below, please provide information about the total number of hours this school building was open for scheduled student, family or community services or activities during the current school year.

	Approximate Number of Hours, **Current School Year**
Before the regular school day	
After the regular school day	
During the summer	
On weekends	

10. **Student Activities:** If any activities or services within the categories listed below were provided in this school this past year indicate the approximate total number of hours of activities within each category. An exact total or count is not necessary--a close estimate will be sufficient to document the board's good faith effort to comply with the SAGE community collaboration requirement.

	Approximate Total Number of Hours, **Current School Year**
a. Academic Support	
b. Recreation and Sports	
c. Preschool programming	
d. Health and Wellness	
e. Other (specify activity/service below)	

11. If you entered hours for the "other" category in the activity/service question above, please specify what the activity/service is in the space provided.

12. **Family/Community Activities:** If any activities or services within the categories listed below were provided in this school this past year indicate the approximate total number of hours of activities within each category. An exact total is not necessary--a close estimate will

be sufficient to document the board's good faith effort to comply with the SAGE community collaboration requirement.

	Approximate Total Number of Hours, **Current School Year**
Adult Enrichment/Community Education Programs	
Adult Basic Education/GED/ESL Instruction	
Social Services/Health/Wellness Services	
Family/Parenting Classes/Services	
School Governance/Advisory Council/PTA/PTO	
Family/Community Night Events	
Adult/Community Recreation/Athletics	
Other	

13. If you entered hours for the "other" category in the activity/service question above, please specify what the activity/service is in the space provided.

III. Curriculum and Planning

14. Are any of the following comprehensive school reform or curriculum models used in this school? Please check all that apply.

Direct Instruction	
Success for All/Roots and Wings	
Accelerated Schools	
Professional Learning Communities	
Comer School Development Program	
Coalition of Essential Schools	
Other, please specify	

14a. If you checked Other for the previous question, please specify what the reform/model is in the space provided.

15. **Planning Time:** The statutes (s. 118.43(3)(d)2) require the board of each participating school to provide time for employees to collaborate and plan. Please use the text boxes to answer each of the following:

	Approximate Minutes Per Week,

	Current School Year
Staff Planning (individual): On the average, how many minutes of planning time per week are provided to an individual teacher in the SAGE grades during the school day (according to your schools master schedule)?	
Staff Planning (group): On the average, about how many minutes per week do teachers in SAGE grades have to plan together in groups such as grade level teams or cross-grade teams (according to your schools master schedule)?	

IV. Staff Development

Professional Development: The statutes (s. 118.43 (4)(c) 3)) require that each school's performance objectives shall include professional development with the objective of improving pupil academic achievement.

16. Does this school have a plan in place that includes explicit goals for professional development specifically focused on improving academic achievement?

17. Professional Development Objectives: Does the school or district provide any of the following professional development programs, services, or activities for administrators, SAGE teachers, or other certified instructional staff? Please check all that apply.

	Administrators	K-3 Teachers
Support to develop a written Professional Development Plan (PDP)		
A transition/orientation for employees new to the SAGE program		
Training to improve use of student assessment data		
Support to gain greater understanding of Wisconsin Student Standards and assessment frameworks		
Support for effective implementation of specific curriculum in a content area		
Training regarding effective team teaching arrangements		
Support for implementing pedagogical techniques for smaller classes		
Professional development related to differentiation of instruction		
Professional development related to improving classroom management		
Professional development related to improving family and community relations		
Professional development related to improving instruction		

for children with special needs		
Professional development related to improving instruction for English language learners		
Professional development related to increasing student engagement or motivation		
Professional development related to increasing use of small group or hands-on activities		

18. **Individual Professional Development Plans:** How often are individual professional development plans focused on improving pupil academic achievement prepared for:

	Once per year	Once every 2 years	Once every 3 years	Once every 4 years	Not Done
Administrators?					
SAGE Teachers?					

19. **Plan Form:** If teachers and/or administrators in this school currently utilize individual professional development plans select the best description of those plans below.

Individual written plan only required for initial educators	
All/most staff put formal plans in writing	
All/most staff use informal plans	
Staff/supervisors discuss plans/goals verbally	
Plans made for school-not individuals	
No PDP process in place yet	

20. Plan Review: How often is the success of the plan evaluated for:

	Once per year	Once every 2 years	Once every 3 years	Once every 4 years	Not Evaluated
Administrators?					
SAGE Teachers?					

21. Does the process for **administrators** include the required components?

22. Does the process for teachers include the required components?

V. Program Resources and Coordination

23. **Resources:** To what extent does this school use each of the following funding sources to support SAGE activities?

	Not used	To a small extent	To a moderate extent	To a great extent
Other State Aids				
District Funds				
Federal Title I				
Federal Title II				
Foundation of Private Funds				
Other Federal programs (Such as IDEA, Title 7 bilingual education funds, or Title 9 funds for Indian educational services)				

24. **Coordination:** To what extent is this school able to...

	Not used	To a small extent	To a moderate extent	To a great extent
use non-SAGE funding for initiatives or programs that complement SAGE-funded efforts?				
coordinate Title I programs with SAGE?				
coordinate ELL programs with SAGE?				
coordinate Special Education programs with SAGE?				

25. **SAGE Support:** To what extent has your district…

	Not used	To a small extent	To a moderate extent	To a great extent
created opportunities for SAGE school principals to analyze student achievement data related to SAGE?				
provided information about high quality support providers that can help the school make SAGE better?				
provided the resources needed to do a good job of implementing SAGE at this school?				

created structures and opportunities for collaboration among SAGE schools and teachers?				
adapted its rules and procedures where needed to make SAGE work?				

VI. Planning for Next Year

26. **Class Size** - The statutes (s.118.43 (4)(a)) require each contract to include a description of how each program requirement will be implemented. If this school intends to participate in the SAGE program next year indicate:

Kindergarten - Expected Enrollment	
Kindergarten - Number of FTE Teachers to be employed	
Grade 1 - Expected Enrollment	
Grade 1 - Number of FTE Teachers to be employed	
Grade 2 - Expected Enrollment	
Grade 2 - Number of FTE Teachers to be employed	
Grade 3 - Expected Enrollment	
Grade 3 - Number of FTE Teachers to be employed	

27. **SAGE Participation:** Will this school continue to participate in the SAGE program next year?

28. Will there be any change in structure?

29. From the choices below, choose the description for the most significant change that will take place in the next school year - relating to grades K-3 in this school or relating to this school.

K-3 Classrooms/Sections will be Added	
K-3 Classrooms/Sections will be Reduced	
School will Move to a New Building	
New Charter will be Created in Part of the Building	
Kindergarten will be changed from part day to full day	
Other	
Not Applicable	

29a. If you checked other for the previous question, please specify the most significant change that will take place here.

30. From the choices below, please select the primary reason your school will not participate in SAGE next year:

Not Enough SAGE Aid to Fund Teachers Needed	
District Unable to Provide Local Funds	
No Space for More Sections	
No Space for More Sections	
SAGE benefits not worth the cost	
School will be Closed	
School restructuring-no more grades K-3	
Other	

30a. If you checked other for the previous question, please specify your primary reason for not participating in SAGE next year.

SAGE Program Feedback-Optional

We appreciate your feedback about DPI services related to the SAGE Program.

31. Have phone calls or e-mails to the DPI been answered promptly?

32. Have you found the DPI SAGE web site useful?

33. Use the space provided below for any general comments or suggestions for improvement.

APPENDIX G: 2007-8 SAGE Project Qualitative Design

Qualitative Design SAGE Project
2007-8

The design for the qualitative component of SAGE work in 2004-6 relied on school level measures of student achievement, measured by 3rd/4th grade reading performance. The link between these school level measures and classroom practice is loosely coupled at best.

- SAGE is a program implemented at K, 1, 2 and 3 and only measuring outcomes at the end of the program delays a measure of program impact

- The year to year variation in student achievement is considerable, particularly in small schools

- Although many schools have worked to align their curriculum with the state standards, there may be some gap between the curriculum and WKCE

- Measures of practice like the CLASS, are necessarily incomplete

These issues led us to conceptualize SAGE implementation as a system in which *higher* level of implementation across all four pillars might lead to *higher* student achievement. To assess whether this conceptualization was accurate, we developed a strategy for testing it using the following research questions:

- What is the relationship between the degree of SAGE implementation and student achievement?

- How does implementation of the four pillars of SAGE shape opportunities for teaching and learning in SAGE classrooms & schools?

SAGE implementation is a synergistic system, in which full implementation across all four pillars generates more potential for positive student outcomes than partial implementation. Using this logic we developed and applied a model of SAGE implementation, using data from the SAGE EoY Report and tested using the 9-school sample of the teacher survey. Table 9 illustrates the implementation typology and how we were thinking about SAGE implementation.

Table 9.

SAGE Implementation Typology

SAGE Pillar	Low	Moderate	High
Reduce class size to 15:1	Tag team teaching, team teachers pulled to cover for colleague absence	Mixture of small group teaching & tag teaming. 30:2 shared space teaching	Fully implemented 15:1 teaching in all classes
Professional development & teacher evaluation	Fragmented, one shot, externally presented presentations	Development minimally connected to other instructional efforts, teachers not involved in planning,	Continuous, embedded, aligned development, scheduled teacher planning alone & with colleagues, active, including PD on working with smaller groups and/related to teaming
Rigorous curriculum	Fragmented, unplanned, assessment not used to inform instruction, unaligned, unconnected to experiences of students/families, low expectations	Instruction is variable, dependent on efforts of individual teachers. Minimal alignment within subjects, grade level, or school.	Curriculum aligned with local standards, relevant assessments and reporting formats, teacher professional development, and responsive to student needs and experiences. Best practice in content is explicitly related to best practice with small groups.
Lighted schoolhouse	Activities outside the school day minimally provided through other efforts. Little collaboration between home and school. Families not seen as partners in education	Individual teachers work to form relationships with families. Before/after school programs provided by external organizations without communication with local school.	School activities developed before and after school in response to community need. Community resources offered through the school to all community members.

SAGE Quadrant Analysis

We undertook an analysis of the degree to which SAGE implementation was related to school performance (student achievement) in SAGE schools. Our goal was to identify four groups of schools for further study, allowing us to do in-depth field work to explore how and why SAGE works to improve student achievement. We wanted to identify four groups of schools: high performing/ high implementing, high performing/low implementing, low performing/high implementing, and low performing/low implementing. To identify these groups, we had to measure both school performance and SAGE implementation.

We measured school performance in terms of the percent of third grade students at the proficient or above level of third grade reading tests. Because these percentages can vary substantially from year to year, we decided to use percentages from three years of testing: 2006, 2005, and 2004. For 2006 and 2005, we used the percent proficient or above on the WKCE given in November. For 2004, we used the percent proficient or above on the WRCT. Any error related to using two different tests is constant, therefore not providing a bias in the estimate. Because a school's average student proficiency depends on the background characteristics students bring to schools, we also wanted to statistically control for these characteristics. Data on percent proficient or above and the percentages of students with various characteristics was obtained from test score files provided by DPI. Data on teachers was obtained from the DPI all staff files for the appropriate year. At level 1 (the year level) the model included these controls:

- Number of 3rd graders enrolled

- Percent of tested student with limited English Proficiency

- Percent of tested student with a disability

- Percent of tested students categorized as economically disadvantaged

- Percent of tested students who were categorized as a race or ethnicity other than white

- Percent of tested students enrolled in school for the full year

- Percent of teachers with Masters degree or higher

- Average teacher experience

- Percent of the schools teachers in their 1st year

At level 2, the model did not include any controls, but simply estimated the individual school performance (the expected relative percent proficient or above for each school). This school performance estimate combines the three years of data[17] for each school to provide a more stable and reliable estimate of the expected percent of students proficient or above in grade 3 reading, controlling for important background characteristics of the students who took the tests and average teacher experience and training.

In essence, the statistical technique combines three samples of school effectiveness (the three yeas of percent proficient or above data) to get a better estimate of how the school's performance is helping students reach reading proficiency. Schools with a performance estimate of around zero are doing about as well as average, given the population of students who took the

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[17] A few schools did not have three years of data. The statistical modeling technique used takes this into account in estimating the school effect by adjusting the estimate to be closer to the sample average.

tests and the teacher characteristics in the model. Schools with negative performance estimates are doing less well then average, and schools with positive estimates better. Schools with performance estimates substantially above zero can be thought of as "beating the odds" by producing higher average student achievement than would be expected given their student populations and teacher training and experience.

We measured SAGE implementation using responses from the 2006 EoY Report. We chose items from the report that represented three of the four SAGE pillars: reduced class size, lighted schoolhouse, and professional development & evaluation. The items we used are shown in the Table 10 below.

Table 10

SAGE Implementation Indicators

Pillar	EoY Report Items
Reduced Class Size	Proportion of class sections in grades K through 3 with a full time teacher for up to 15 students.
Professional Development & Teacher Evaluation 1. Planning time 2. Professional development content 3. Professional development planning process	Reported number of minutes of individual planning time per week Reported number of minutes of group planning time per week Whether school provided teachers with PD in the following areas: - support for developing a PD plan - transition to a SAGE school - team teaching - pedagogy for small classes - differentiation of instruction - family & community involvement - motivation/engagement of students - using small group/hands-on activities A school score was developed by giving each school one point for each area. Reported frequency of PD plan preparation for teachers (1=once per year…5 = not done) Reported frequency of plan review for teachers (1=once per year…5 = not done)

Lighted School House	Reported total number of hours open before and after school day, on weekends, and during summer per year
	Reported total number of hours of student services provided outside of school day per year
	Reported total number of hours of family/community services provided per year

Before attempting to analyze the relationship of implementation indicators to the student achievement measure, we looked at the inter-relationships among the former. Ideally, the implementation measures would be highly correlated with each other, so that we could identify unambiguously "high" and "low" implementing SAGE schools. High implementing schools would be those with high scores on all of the implementation indicators, while low implementing schools would be those with low scores on all of the indicators. Unfortunately, as Table 11 shows, most of these indicators were not highly correlated. For example you would expect all the items related to professional development (items 2-6) to be highly correlated but the correlations range from .05-.79.

Table 11

Correlations Among Implementation Indicators

	2	3	4	5	6	7	8	9
1. Reduced Class Size	.16	-.00	.00	.11	.08	.04	.03	-.01
2. Individual planning time	-	.35	.13	.20	.22	.07	.09	.11
3. Group planning time		-	.05	.09	.07	.06	.02	.01
4. PD content			-	.17	.18	.04	.08	.09
5. Frequency of PD planning				-	.79	-.02	-.01	-.04
6. Frequency of PD plan review					-	-.04	.00	-.01
7. Total hours open						-	.35	.34
8. Hours student services							-	.47
9. Hours community/family services								-

There are two potential explanations for these generally low correlations. One is that individual schools do not tend to implement all of the SAGE pillars at either a high or low level. Schools may pick and choose which pillars they strongly implement, and there is little tendency to implement all at once. The singular focus on the class size component, which receives the most oversight by the state, may overshadow the other pillars. Alternatively, the responses to the EoY report may be inaccurate. Both of these explanations are plausible. In particular, our initial

work in editing and cleaning the EoY responses found that a substantial number of schools gave unlikely responses to some items (e.g., teacher planning time, total number of hours open). While we contacted schools to obtain corrected responses for the most glaring potential errors, it may be that even values that looked plausible were in fact wrong.

Because of these low correlations, we could not identify high and low implementing schools as planned. We can only identify schools that appear high or low implementing on each of the indicators. When we correlated each indicator with our measure of school effectiveness, however, we found that none of the correlations were above .10. A linear combination of the indicators was only very weakly related to school effectiveness. These results call into question our strategy of identifying schools as high performing/high implementing, high performing/low implementing, low performing/high implementing, and low performing/low implementing, then choosing schools in each group for fieldwork. Because there are few (if any) schools that are high or low on most of the implementation measures, the definition of a "high implementing" school is ambiguous.

It is possible to identify high and low implementing schools on each implementation measure, and if one were to choose one measure as most important, one could look at schools as high performing/high implementing, high performing/low implementing, low performing/high implementing, and low performing/low implementing schools. Given SAGE's focus on class size reduction, we proposed using that pillar as the proxy for implementation.

In this context we moved to understanding *how* SAGE can be successful in different models of implementation. This is illustrated in the revised sampling plan that follows.

Revised Sampling Memo

Qualitative Component SAGE Evaluation

Beth Graue

February 18, 2008

For the last 3 years, we've worked with a group of 9 SAGE schools that represented variation in terms of achievement, geographic location, and SAGE configurations. There were trade offs in that sample. Though we had schools that represented high achieving, low achieving and rapidly improving schools relative to their *predicted*[18] outcomes and had examples of those across urban, semi-urban, and rural schools, there was overlap in the *actual* achievement across groups since the "low achieving" rural schools often had achievement equal to the "high achieving" urban schools.

With the opportunity of pulling a new sample, we worked hard to find maximal variation in student achievement between the groups so that we could make good distinctions between groups on the basis of achievement and instructional practice. In addition, we decided to focus on a single grade level this year to hold constant a major element in design of instruction. Our preliminary analysis of the EoY report found only the class size reduction pillar had much predictive power for student outcomes. Because of this, we decided that the variation in class size reduction implementation should be a key factor in the sample selection process. Finally, DPI requested that we limit our sample to schools in Milwaukee Public Schools (MPS) and Madison Metropolitan School District (MMSD) to mirror the design of the quantitative study.

As a result, we will be looking at high achieving and low achieving MPS and MMSD schools along a continuum of class size implementation. Specifically, we'll be sampling schools that range from those that only have 15:1 classrooms to those that have a mixture of configurations, with the intention of *understanding successful and less successful examples of the officially sanctioned SAGE configurations*.

PLAN:

Sample a total of 12 schools (6 high achieving and 6 low achieving, relative to expectations). In each school, identify 3 first grade teachers who represent the school's practices (see Table 12).

- Observations of one ½ day of practice in each classroom (conducted by pairs of observers-- one administering the Classroom Assessment Scoring System and the other doing a qualitative description of practice).

- Focus groups with all first grade teachers at each of the twelve schools that describe the experiences of teaching first grade in a SAGE school.

- Individual interviews with observed teachers focused on their specific practice and referring to the observation.

- Interviews with the principal on leadership in a SAGE school.

- SAGE teacher surveys with all SAGE teachers in the school.

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[18] As determined through regression analysis.

Table 12

2007-8 Sample[19]

	Mixed Implementation Schools	High Density 15:1 Implementation Schools
High Achieving	Poe MPS Davis MPS Edge MPS	Hughes MMSD Language Learning MPS Dickinson MPS
Low Achieving	Woodhouse MPS Harvest MPS	Success for All MPS Community MPS Valleyview MMSD Pryor MPS

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[19] All names are pseudonyms

APPENDIX H: 2007-8 Materials

2007-8 Teacher Interview

Thank you for agreeing to chat with me – I know how precious teacher time is. I really enjoyed my visit to your classroom and hope our conversation today can connect general ideas about SAGE with your practice. The group I work with has been studying SAGE for several years – trying to understand how, when, and in what circumstances SAGE works best. We are also trying to understand which parts of the program districts and schools are most attentive to, why, and what it means for teachers and students.

In this interview, which should take no more an hour, depending on how much we talk, I'd like you to talk about SAGE at your school and in your classroom. I will build on the group discussion we had at school the day we visited.

First, it's always good to get a sense of the context for comments.
- Is there anything more I should know about you to understand your teaching? We had brief introductions in our group discussion.

Most people think of SAGE as a class size reduction program. How do you use the class size reduction part of SAGE as a resource for your teaching?
- How do you think the class size of SAGE affects the everyday life of your students?
- You?
  - Prompts: why do you think that is? Can you give some examples?

What are your goals for your students?
  - Why?
  - How are those goals related to the curriculum used here?
  - How does SAGE help/prevent you from achieving those goals?

Teaching is really complex – you have to juggle multiple elements to help students learn. I'd like you to talk about how SAGE helps you in instruction in specific ways.
- One piece of teaching is keeping the classroom organized – managing student's behavior, using time productively, using interesting teaching formats.
  - When I visited you [give an example of *classroom organization* rated by CLASS that is a modal rating for this teacher]. Can you talk about how this is an example of your teaching?
    - Can you give a different example?
  - How is SAGE part of classroom organization?
- Another element is support for instruction – how you help students develop concepts, how you model language and give feedback.
  - When I visited you [give an example of *instructional support* rated by CLASS that is a modal rating for this teacher]. Can you talk about how this as an example of your teaching?
    - Can you give a different example?
  - How is SAGE part of instructional support?

- Emotional support is also important in teaching – creating a positive climate, being sensitive to student needs and responding to student ideas.
    - When I visited you [give an example of *emotional support* rated by CLASS that is a modal rating for this teacher]. Can you talk about how this as an example of your teaching?
        - Can you give a different example?
    - How is SAGE part of emotional support?
- Ultimately, teaching is all about keeping students engaged in the learning process.
    - When I visited you [give an example of *student engagement* rated by CLASS that is a modal rating for this teacher]. Can you talk about how this is an example of your teaching?
        - Can you give a different example?
    - How is SAGE part of student engagement?

If SAGE is a resource that can enrich teaching, what kind of support would help you better use this resource?
- Prompts: professional development, configurations, schedules, space

Is there anything else I should ask you to help me understand your classroom, school or SAGE?

2007-8 First Grade Teacher Focus Group Interview Protocol

Thanks for joining me/us for this focus group. Our group is trying to develop a better understanding of teacher practice in SAGE schools, so throughout today's conversation, we'll be guiding the discussion to ideas of curriculum, instruction in the SAGE classroom and issues of professional development. I do want to mention that all identifiable names are changed, so you shouldn't feel hesitant to say your own name, kids' names, place names, etc. Are there any questions I can answer before we begin?

~Start recording~

1. First, let's go around the (table, room, etc.) and tell me your name and a little bit about your teaching career, such as how long you've been an educator, how long you've taught here at this school, any special interests or certifications, and whatever else seems relevant.

2. How would you describe the school philosophy to someone who has never been here? (Prompts: How would you describe… your programs? Curricula? Planning and team teaching structures? From your perspective, what makes this school unique?)

3. How would you describe the community this school serves? (Prompts: How would you describe the kids? Their families? The area in general?)

4. How does being a teacher in this school and community influence and shape your teaching practice?

5. My team has been in schools across Wisconsin. One of the most interesting things is that "SAGE" in one school can look completely different from "SAGE" in another school. So, I'm curious… what's SAGE like at ____ School? What is it like to be a SAGE teacher here?

6. SAGE stands for "Student Achievement Guarantee in Education" – what do you think about that? From your perspective, how is SAGE an "achievement guarantee"?

7. The SAGE legislation says that there should be a lot of attention on professional development in SAGE schools. How do you see that happening/not happening at your school? (Prompts: What is the relationship, if any, between professional development and being a SAGE teacher? How does the professional development work you've done affect your students' experience in your classroom?)

8. Are there any other questions I should have asked – or things you think would be important for me to know about SAGE at [your school]?

2007-8 Principal Interview

Thank you for agreeing to chat with me – I know how precious administrator time is. I really enjoyed my visit to your school and hope our conversation today can connect general ideas about SAGE with your practice. The group I work with has been studying SAGE for several years – trying to understand how, when, and in what circumstances SAGE works best. We are also trying to understand which parts of the program districts and schools are most attentive to, why, and what it means for teachers and students.

In this interview, which should take no more an hour, depending on how much we talk, I'd like you to talk about SAGE at your school and in your district.

First, it's always good to get a sense of the context for comments.
- Tell me a little bit about yourself – what's your background, how long have you been a principal, etc.?
- How about your school – how would you describe the school?
- And the community it serves? How would you describe the families, the environment, etc?

My team has been in schools across Wisconsin. One of the most interesting things is that SAGE in one school can look completely different from SAGE in another school. So, I'm curious, what's SAGE like here?
- How have you organized the implementation?
  - How did you make decisions about that?
  - What challenges have you had?
  - What direction do you receive from your district related to SAGE?

Most people think of SAGE as a class size reduction program. How do you use the class size reduction part of SAGE as a resource for your school?
- How do you think the class size of SAGE affects the everyday life of your students?
- Your teachers?
  - Prompts: why do you think that is? Can you give some examples? How would it be different with larger classes?

What are your goals for your students?
- Why?
- How are those goals related to the curriculum used here?
- How does SAGE help/prevent you from achieving those goals?

Teaching is really complex – you have to juggle multiple elements to help students learn. And providing leadership to help teachers do that to the best of their ability adds another layer of complexity. I'd like you to talk about how you help teachers manage important elements of classroom practice and how SAGE is a support in that process. Some people have broken teaching down into 4 elements: classroom organization, instructional support, emotional support and student engagement – all things that come together to produce learning. I'd like you to talk

about your priorities in these areas and how you help teachers do their best work. [have a piece of paper with these four elements listed in big letters to remind of each]
- Can you give a specific example?
- How does SAGE provide a resource for these?

In addition to class size, the SAGE legislation calls for teacher professional development. Clearly, the people who designed the law thought there should be a connection – what do you think the relationship is between professional development and high quality teaching in SAGE schools?
- How do you see that playing out in your school?
- What SAGE professional development would improve the teaching and learning here?

SAGE stands for *Student Achievement Guarantee in Education* – from your perspective, how is SAGE an achievement guarantee?

Is there anything else I should ask you to help me understand SAGE at your school?

Principal Consent Form
UNIVERSITY OF WISCONSIN-MADISON
Research Participant Information and Consent Form

Title of the Study: Class size reduction in practice: How, when & why SAGE works

Principal Investigator: Elizabeth Graue (phone: 608 262-7435) (email: megraue@wisc.edu)

DESCRIPTION OF THE RESEARCH

You are invited to participate in a research study about administrative and instructional practices in SAGE schools. The purpose of the research is to describe practices in SAGE schools that enhance student achievement. You have been asked to participate because your school participates in the SAGE program.

This study will include first grade classrooms in schools that represent a range of student demographic characteristics, achievement, and SAGE implementation. This research will be conducted in your school/classroom. It will include 1) an observation of teaching in first grade classrooms, 2) a focus group interview with teachers in grade one, 3) individual interviews with first grade teachers, and 4) a survey of all SAGE teachers in your building. Your specific participation would involve an interview about how SAGE is implemented in your building.

Audio tapes will be made of your participation in an interview. Only the research team and transcriber will hear the audio recordings. The tapes will be kept until they are transcribed.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research you will be asked to allow us to interview you about SAGE implementation. This interview, which should take approximately an hour, will be scheduled at a time most convenient for you and will be audiotaped. In addition, you will be asked to identify 3 first grade classrooms that represent your school's practice and facilitate our contact with those teachers. Finally we'll ask you to facilitate administration and return of a SAGE teacher survey for all SAGE teachers in your building. The school will receive a $5 donation for each teacher who participates in the survey

ARE THERE ANY RISKS TO ME?

We don't anticipate any risks to your participation. No identifiable information from the project will be available to your employer.

ARE THERE ANY BENEFITS TO ME?

In the past, participants have found talking about their work in the SAGE program a good professional reflection experience.

WILL I BE COMPENSATED FOR MY PARTICIPATION?

You will receive $20.00 for participating in this study. If you do withdraw prior to the end of the study, you will receive a prorated amount of the total.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

All participants and locations will be assigned pseudonyms so you will not be identifiable.

If you participate in this study, we would like to be able to quote you directly without using your name. If you agree to allow us to identify you in publications, please initial the statement at the bottom of this form.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after I leave today you should contact the Principal Investigator Elizabeth Graue at 608 262-7435.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. You will receive a copy of this form for your records.

Name of Participant (please print):_____

_____   _____
Signature   Date

_____   I give my permission to be quoted directly in publications without using my name.

Teacher Consent Form
UNIVERSITY OF WISCONSIN-MADISON
Research Participant Information and Consent Form

Title of the Study: Class size reduction in practice: How, when & why SAGE works

Principal Investigator: Elizabeth Graue (phone: 608 262-7435) (email: megraue@wisc.edu)

DESCRIPTION OF THE RESEARCH

You are invited to participate in a research study about administrative and instructional practices in SAGE schools. The purpose of the research is to describe practices in SAGE schools that enhance student achievement. You have been asked to participate because your school participates in the SAGE program, we are interested in teaching practices in first grade, and your teaching represents the practices of your school.

This study will include first grade classrooms in schools that represent a range of student demographic characteristics, achievement, and SAGE implementation. This research will be conducted in your school/classroom. It will include 1) an observation of teaching, 2) a focus group interview with teachers at your grade level, 3) an individual interview, and 4) a survey of all SAGE teachers in your building.

Audio tapes will be made of your participation in an interview. Only the research team and transcriber will hear the audio recordings. The tapes will be kept until they are transcribed.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research you will be asked to allow us to interview you twice – once in a group setting with your grade level colleagues and once alone about your participation in the SAGE program. These interviews will be scheduled at a time that does not conflict with instructional responsibilities. The interviews should take approximately 45-60 minutes each. Teachers will be asked to allow 2 researchers to observe one half day of instruction. One researcher will use the Classroom Assessment Scoring System and one will write a description of practice. Finally all SAGE teachers in your school will be asked to complete a teacher survey that typically takes about 20 minutes to complete.

You will be asked to complete 1 survey and 2 interviews which should take about 100 minutes total.

ARE THERE ANY RISKS TO ME?

We don't anticipate any risks to your participation. No identifiable information from the project will be available to your employer.

ARE THERE ANY BENEFITS TO ME?

In the past, participants have found talking about their work in the SAGE program a good professional reflection experience.

WILL I BE COMPENSATED FOR MY PARTICIPATION?

You will receive $30.00 for participating in this study. If you do withdraw prior to the end of the study, you will receive a prorated amount of the total.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

All participants and locations will be assigned pseudonyms so you will not be identifiable.

If you participate in this study, we would like to be able to quote you directly without using your name. If you agree to allow us to identify you in publications, please initial the statement at the bottom of this form.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after I leave today you should contact the Principal Investigator Elizabeth Graue at 608 262-7435.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. You will receive a copy of this form for your records.

Name of Participant (please print):_____

_____   _____
Signature   Date

_____   I give my permission to be quoted directly in publications without using my name.

UNIVERSITY OF WISCONSIN-MADISON
Research Participant Information and Consent Form

Title of the Study: Class size reduction in practice: How, when & why SAGE works

Principal Investigator: Elizabeth Graue (phone: 608 262-7435) (email: megraue@wisc.edu)

DESCRIPTION OF THE RESEARCH

You are invited to participate in a research study about administrative and instructional practices in SAGE schools. The purpose of the research is to describe practices in SAGE schools that influence student achievement.

This study will include first grade classrooms in schools that represent a range of student demographic characteristics, achievement, and SAGE implementation. You have been asked to participate because we are specifically interested in SAGE teachers and teaching practices at the first grade level. This research will be conducted in your school/classroom. It will include a focus group interview with teachers at your grade level. Audio recordings will be made of your participation in an interview. Only the research team and transcriber will hear the audio recordings. The recordings will be kept until they are transcribed.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research you will be asked to allow us to interview you in a focus group with your first grade colleagues. This interview will be scheduled at a time that does not conflict with instructional responsibilities. The interview should take approximately 45-60 minutes each.

ARE THERE ANY RISKS TO ME?

We don't anticipate any risks to your participation.

ARE THERE ANY BENEFITS TO ME?

In the past, participants have found talking about their work in the SAGE program a good professional reflection experience.

WILL I BE COMPENSATED FOR MY PARTICIPATION?

You will receive $10.00 for participating in this study. If you do withdraw prior to the end of the study, you will receive a prorated amount of the total. Your school will receive a donation of $5 per teacher who participates in the survey.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

All participants and locations will be assigned pseudonyms and will be kept confidential, so you

will not be identifiable.

If you participate in this study, we would like to be able to quote you directly without using your name. If you agree to allow us to quote you in publications, please initial the statement at the bottom of this form.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after I leave today you should contact the Principal Investigator Elizabeth Graue at 608 262-7435. If you have questions or concerns about your rights as a participant in research, please contact Donna Jahnke, 608-263-2320 or email: DCJahnke@LS.Admin.wisc.edu.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. You will receive a copy of this form for your records.

Name of Participant (please print):_____

_____   _____
Signature   Date

_____   I give my permission to be quoted directly in publications without using my name.
_