SUPPORTING SYNERGISTIC PRACTICES IN SAGE SCHOOLS

2008-9 STUDENT ACHIEVEMENT GUARANTEE IN EDUCATION QUALITATIVE EVALUATION

SUBMITTED BY

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Melissa Sherfinski, Erica Rauscher & Anne Karch

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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. The research was designed to explore the interaction of class size reduction and classroom quality. Based on the final year of fieldwork for the qualitative team, it reflects research with a sample of 12 schools in 2 urban areas. Within that sample we chose schools that represented ranges of student achievement and SAGE class size implementation.

Within the 12 schools, we sampled three first grade classrooms. In those classrooms we used the Classroom Assessment Scoring System (CLASS), ethnographic observation, and collection of artifacts to develop portraits of practice. In addition, we interviewed each of the teachers and the principal, we conducted focus group interviews with all first grade teachers in the school, and we administered a survey of all SAGE teachers in the school.

The report is organized by a school typology derived from the data collected. Representing nested ecologies that affect SAGE implementation and experience, the elements are *School Integrated* models in which SAGE ecologies (administrative strategies, classroom plus, classroom quality, and child outcomes) are unified; *Fragmented* models in which ecologies pull against each other counter-productively; and *Classroom-Defined* schools in which SAGE is seen as a classroom level reform. We provide examples of promising and challenged practice, contrasting classroom quality, practices and administrative support.

We conclude with a summary and recommendations.

BACKGROUND TO 2007-8 RESEARCH

Between 2004 and 2007 researchers from Wisconsin Center for Education Research (WCER) studied the implementation of the *Student Achievement in Education (SAGE)* (see Appendix A for SAGE law) in a sample of nine schools in Wisconsin. The sample was designed to represent characteristics relevant to the SAGE program, including 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 terms of 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). 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: kindergarten, 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. In year three (2006-7), we returned to three of the schools to do in-depth case studies of promising SAGE practices. For the case studies we completed: 1) seven half-day observations in three classrooms per school (one observation videotaped), 2) multiple interviews with observed teachers and the school principal, and 3) artifact collection. In addition we completed the following in all nine schools: 1) interviews with staff in the original study, 2) observations of classrooms using the Classroom Assessment Scoring System, and 3) surveys of all SAGE teachers in the school.

The research in 2004-07generated a rich set of reports that detail the challenges and successes of implementing SAGE in diverse contexts. 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, the nature of implementation across grades and schools, 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. These reports may be found at the following website:

http://varc.wceruw.org/sage/

This report builds on the knowledge related to SAGE generated to date. In the next section we review the literature on class size reduction, including that derived from this project and articulate the design for the research undertaken in 2007-8. It was framed to take advantage of the IQ^2 design originally proposed in 2005, an attempt to link inquiry on implementation and research on program effects.

LITERATURE REVIEW

The broad topic of class size—inclusive of pupil teacher ratio (PTR), class size (CS), and class size reduction (CSR)—has been studied by researchers representing interests ranging from economics to administration and has focused on short- and long-term outcomes for students. Researchers have also focused on the cost of CSR relative to other reform choices as well as teachers' attitudes and practices. CSR advocates often claim that they choose CSR as a focus to reduce the effects of poverty, to enhance student achievement, and to help students develop the dispositions that will make them successful in school (Ehrenberg, Brewer, Gamoran, & Willms, 2001; Finn, Pannozzo, & Achilles, 2003; Grissmer, 1999; Molnar & Zmrazek, 1994). CSR rests on a large, complex, and discordant body of literature. Though hugely popular with the public, the funding for CSR programs is often supported by kitchen table wisdom rather than a thorough review of all available literature.

In the last ten years, 40 states have implemented CSR programs. The federal government had a short-lived program that infused teachers into the employment ranks to reduce class size. A number of reviews have suggested that children learn more in smaller classes, their teachers are more satisfied, and discipline problems are reduced. Anchored by the only large scale randomized experiment in field-based educational research (Finn & Achilles, 1990), the research on CSR is voluminous and highly varied in both quality and foci. The research on CSR is primarily founded on four major policy implementations: a large-scale experiment in Tennessee, statewide policies in Wisconsin and California, and a comparison of larger and smaller classes in Great Britain. Historically, the first question researchers addressed that policymakers desperately wanted an answer to is: *Does class size reduction work?* For the most part, researchers thus far have provided affirmative answers to this question, linking reduced class size to positive effects on student achievement (Biddle & Berliner, 2002; Finn & Achilles, 1990; Glass & Smith, 1979; Grissmer, 1999), particularly in the early primary grades and for African-American and poor students (Nye, Hedges, & Konstantopoulos, 2004; Pate-Bain, Achilles, McKenna, & Zaharias, 1992; Smith, Molnar, & Zahorik, 2003). According to some reports, these effects are sustained beyond the treatment years for students who are exposed to small classes (Ehrenberg et al., 2001; Finn, Gerber, Achilles, & Boyd- Zaharias, 2001; Nye, Hedges, & Konstantopoulos, 2001). Positive outcomes on students' and teachers' attitudes have also been found in the context of smaller classes (Smith & Glass, 1980; Zahorik, Halbach, Ehrle, & Molnar, 2003). Therefore, it would seem that CSR works to improve student achievement in the early grades and for students often thought to be at risk, and that it enhances the affective experiences of both teachers and students.

As many have assumed that the central issue of effectiveness is settled, a second question emerged, focusing instead on the instructional processes at work within smaller classes: *How* (and why) *does class size reduction work?* This line of analysis focuses on the mechanism(s) at work in CSR reform contexts and recognizes that something changes in smaller classes beyond the number of people in the room. Some assert that teacher action is essentially the same in classes of different sizes, and since instructional practices do not change, class size reduction is essentially a structural reform in that it is administratively controllable (Cahen, Filby, McCutcheon, & Kyle, 1983; Rice, 1999; Slavin, 1989; Stasz & Stecher, 2002). Others have

charted patterns related to student outcomes, and they have identified differences related to teacher action (Blatchford, Baines, Kutnick, & Martin, 2001; Blatchford, Bassett, & Brown, 2005; Zahorik et al., 2003). In these cases, effective teachers of small classes individualize teaching, have clear expectations, are less distracted by discipline problems, and balance teacher-directed and child-centered teaching.

In the period since the most recent research review on class size reduction (Finn et al., 2003), researchers have continued to explore the topic through two general approaches. The first type classifies class size as a structural input that should be related to student outcomes. These studies are typically analyses of databases that tie student achievement to markers of class size (sometimes PTR, sometimes CS). For example, Sims (2008) asserts that the use of combination classes motivated by the class size threshold in California caused a test scored gap for certain second or third graders. Konstantopoulos (2008) found that higher ability students benefited more from being in a small class and that use of smaller classes did not reduce the achievement gap. The second type of follow-up research has focused on the mechanisms or processes in classes of different sizes. Researchers from this group explored student and teacher behaviors in different sized classes (Blatchford et al., 2005) or compared measures of student teacher interaction and structural inputs and found that the former better predicted student outcomes (NICHD Early Child Care Research Network, 2004, 2005). What distinguishes these projects is whether the model for the mechanisms of student learning focuses on structural inputs (such as class size) or whether it includes attention to process (such as student/teacher interaction). The former is a first generation approach, the latter a second or third generation approach.

Five years of SAGE qualitative analysis. Initial analyses of the program revealed how school leaders influenced key school-level decisions (Burch, Theoharis, & Rauscher, 2009). Administrators held crucial—yet often tacit—roles in using space, serving the needs of diverse student populations, and building teacher capacity. The nine principals studied embodied leadership styles and dispositions that influenced student achievement through the practices they enacted.

Space use was a particular concern in initial understandings of SAGE, as limitations on space forced classroom configurations beyond what was originally intended by the authors of the reform (Graue, Hatch, Rao, & Oen, 2007). Beyond the typical 15:1 implementation of SAGE, 30:2 team-teaching and tag-team teaching were identified as variants. These class size forms were understood to provide different levels of implementation in a continuum from low (tag-team teaching) to high (15:1) quality. Tag team-teaching was found to be especially problematic as it effectively changed the pupil teacher ratio to 30:1 as one teacher taught the large group and the other engaged in clerical work. A need for increased attention to professional development was prescribed to address the fact that many teachers had not merged their instructional practices with the opportunities SAGE classrooms provided.

Analyses of pupil teacher ratios and class size proved too simplistic (see Graue & Rauscher, 2009) and there was a need to understand influences of the SAGE pillars more fully. Further work explored the complexities of how school and classroom structures and processes shaped instruction, assessment and accountability (Graue & Rauscher, under review), how families experienced the SAGE program (Graue & Oen, 2008), and how class size reduction and classroom quality interacted to produce learning opportunities (Graue, Rauscher, & Sherfinski, in press).

Alignment, audience, and action were three segments of assessment practices found to intersect with SAGE programming (Graue & Rauscher, under review). Our fieldwork suggested that alignment of curricula, instruction, assessment and reporting influenced quality positively. Teacher, family, and student input were crucial to a meaningful and authentic accountability structure. Multiple audiences for assessments driving multiple evaluations made for fragmented instruction at times. Teachers' practice was more streamlined and effective when evaluations could be used to inform instruction and satisfy the needs of various stakeholders. School cultures rich in opportunities for collaborative action and professional development were most likely to have quality SAGE environments.

Families were often not included in the educational possibilities of SAGE programming. Through numerous interviews with parents, we found that families often wanted to contribute to the value of their children's schools. The schools held a static picture of who they thought parents should be and what they should be doing to support the work of schooling. The mismatch between the cultures of SAGE schools and local families left the potential of the lighted schoolhouse pillar unrealized (Graue & Oen, 2008). On a hopeful note, families provide rich potential for collaboration within the SAGE program.

Finally, SAGE quality has become easier to assess through the implementation of the CLASS tool. CLASS, used in conjunction with ethnographic observation, has provided a window onto the complexities of instructional practices promoting quality across a range of SAGE configurations and settings (Graue, Rauscher, & Sherfinski, in press). This later work has shown that, together, well-organized SAGE schools and classroom quality provide a synergy yielding high levels of engagement and learning spanning 15:1 and 30:2 SAGE configurations.

2007-8 STUDY METHODOLOGY:

RESEARCH DESIGN, DATA GENERATION, & ANALYSIS

Qualitative Research Design[1]

Our first step to selecting a new sample and designing the next phase of this research project was to undertake an analysis of how 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 were obtained from test score files provided by DPI. Data on teachers were obtained from DPI staff files for the appropriate year. At level 1 (the year level) the model included these controls:

- Number of third graders enrolled
- Percent of tested student with Limited English Proficiency
- Percent of tested students with disabilities
- 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 degrees or higher
- Average teachers' years of experience
- Percent of schools employing first year teachers

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[2] 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 years of percent proficient or above data) to get a better estimate of how the school's

[1] We're grateful to Anthony Milanowski for his guidance and assistance in this part of the design.
[2] 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.

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 tests and the teacher characteristics in the model. Schools with negative performance estimates are doing less well than average, and schools with positive estimates are doing better than average. 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 End of Year (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 1 below.

Table 1

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

We began by looking at the inter-relationships among the implementation indicators. 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 2 shows, most of these indicators were not highly correlated. For example one would expect all the items related to professional development (items 2-6) to be highly correlated; however, the correlations range from .05-.79.

Table 2

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.

The design for 2007-8 balanced attention to a number of issues. After three years' work in our nine school sample, we felt that we could gain much by moving to a new sample. 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 Mallard and Maxwell to mirror the design of the quantitative study. Tables 3 and 4 provide an overview of the new sample.

Table 3

2007-8 Sample[3]

	Mixed Implementation Schools	**High Density 15:1 Implementation Schools**
High Achieving	Poe (Mallard) Davis (Mallard) Edge (Mallard)	Hughes (Maxwell) Language Learning (Mallard) Dickinson (Mallard)
Low Achieving	Woodhouse (Mallard) Harvest (Mallard)	Strong Foundation Academy (Mallard) Community (Mallard) Valleyview (Maxwell) Pryor (Mallard)

[3] All names are pseudonyms

Table 4.

2007-2008 SAGE School Sample Characteristics[4]

School	Community	Davis	Dickinson	Edge	Harvest	Hughes	Language Learning	Poe	Pryor	Strong Foundation	Valleyview	Woodhouse
Geography	Urban	Urban	Urban	Urban	Urban	Semi-urban	Urban	Urban	Urban	Urban	Semi-urban	Urban
District	Mallard	Mallard	Mallard	Mallard	Mallard	Maxwell	Mallard	Mallard	Mallard	Mallard	Maxwell	Mallard
Enrollment	431	706	327	702	378	310	393	383	402	263	406	849
% Black	92.8	9.9	97.6	81.1	85.4	16.8	59.0	8.6	96.0	92.8	27.6	10.5
% Hispanic	.5	66.4	0	2.3	5.8	33.9	3.1	21.1	.7	1.9	34.2	82.2
% White	6.3	20.1	2.1	10.7	8.2	39.7	34.1	64.8	3.2	4.6	26.8	6.2
% Asian	0	1.7	0	5.4	.5	9.0	3.8	5.0	0	.8	10.8	.1
% ELL[5]		4.8		1.1		40.4	.8	3.4			40.6	44.3
% Students w/ disabilities	20.9	13.5	15.9	21.9	22.5	9.7	2.8	21.4	17.4	17.1	17.0	16.6
% FRPL	87.7	85	94.8	81.8	92.6	55.5	54.7	49.1	93.3	93.9	74.4	95.2
Wisconsin 4th Grade Knowledge & Concepts Test 2008 Percent Proficient & Advanced - Reading												
Mean	63	77	50	70	39	66	92	79	49	62	71	53
Wisconsin 4th Grade Knowledge & Concepts Test 2008 Percent Proficient & Advanced - Math												
Mean	40	79	51	56	49	66	92	90	54	22	70	48
Value Added Performance - Reading												
Mean	4.94	2.61	.76	-4.94	2.34	-1.46*	15.81	-4.98	.14	-.65	1.99*	-.21

[4] All names are pseudonyms; enrollment, demographics, and November 2008 WKCE data are from WINNS.
[5] 2007-8 ELL data was not reported for 2007-8 for some schools. The non-reporting schools had very low levels of ELL-qualifying students in past reports (<1%).
*Calculated on 3 years of data

Data Collection

In collaboration with DPI we sampled a total of 12 schools (6 high achieving and 6 low achieving, relative to expectations) that represented either 15:1 SAGE implementation or a mixed model of multiple configurations. In each school, we identified 3 first grade teachers who represented the school's practices. We collected data using the following activities:

- 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 referencing observation details.
- Interviews with the principal on leadership in a SAGE school
- SAGE teacher surveys with all SAGE teachers in the school

Teacher Survey

WCER developed the SAGE teacher survey to describe classroom practice and teacher experience in 2007 for the nine SAGE schools that had been part of our original fieldwork sample (2004 – 2007)[6]. We offered each teacher a $5 gift card for completing the 16-item instrument. We had 100 respondents for a response rate of 85%. The survey was piloted in the spring of 2007 in the original sample schools. For the 2007-8 study we distributed the surveys to all SAGE teachers in the 12 study schools, offering a $5 donation to the school for each completed survey (now with 15 items). We received 149 surveys out of a potential 197, giving us a response rate of 75.6%.

The Teacher Survey was designed for the SAGE project to document practices relevant in SAGE schools. It was seen as a complement to the EoY report, which provides information from the perspective of the principal on SAGE compliance. The Teacher Survey provides information from teachers in sampled SAGE schools about their teaching background, their instructional context, and their activities related to the SAGE pillars. The survey was used for the 2006-7 report and provided information that was nicely complementary of the other data generated. A copy of the Teacher Survey can be found in Appendix D.

Classroom Assessment Scoring System

Because 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) 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 provide a detailed description of CLASS in Appendix B. We used CLASS to support systematic observation of classroom processes with a common metric for all of the classrooms in our sample. The domains and dimensions rated by CLASS are described in Table 5.

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 at least four thirty-minute cycles[7] 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.

[7] 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 5

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 & attention to how comprehension & 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

As Table 6 illustrates, class 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.

Table 6

CLASS Domains by School Achievement on State Grade Four Reading Test

Student achievement in relation to WKCE	Emotional Support	Classroom Organization	Instructional Support	CLASS Mean
High (n=6)	5.43	5.35	3.9	4.89
Low (n=6)	4.93	4.47	3.27	4.24

Analysis

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.

Supported by the qualitative data analysis program NVivo, the research team coded data sources using a shared set of codes. These codes reflected the assumptions that guided the research as well as concepts that were new to the project. As the year progressed, the research team came together to share observations and interviews and suggest emerging themes. Through this process our focus shifted from general to specific and back again, depending on what we were learning. We shared memos (Graue & Walsh, 1998; Maxwell, 1996) that detailed analytical conceptualizations that linked coding categories and illustrated crosscutting themes.

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 fieldnotes, strengthening the links among data collected within those time frames for analytic purposes. Our use of CLASS was complemented by fieldnotes, interviews, photos of classroom environments, and the teacher survey providing a multilayered source for analysis.

The cases in this report illustrate an 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.

2007-8 RESEARCH FINDINGS

Introduction

We begin our report of results by focusing on responses received from our teacher survey. Designed to complement the End of Year report, we asked questions that would give insight into patterns that shape teacher practice. We then turn to our analysis of our fieldwork in 2008, examining how SAGE experiences come about through the interaction of school level and classroom level forces. Following this theme from our first year of fieldwork, it is replicated in a new sample of classrooms and schools and is enriched by the use of the Classroom Assessment Scoring System. The analysis, though primarily at the classroom level, attempts to be inclusive of the diverse factors that shape teaching and learning in SAGE schools.

Teacher Survey Results

Introduction

We see the teacher survey as one of many pieces coming together in our research depicting the complex puzzle of SAGE. In the analysis that follows, we ask what lessons may be learned from teachers' survey responses.

While subsequent sections of the report provide descriptive examples of practice from the study schools and integrate multiple data sources, this section focuses solely on data generated from the Teacher Survey, WINNS, and the administration of the Classroom Assessment Scoring System (CLASS).[8]

The analysis of the survey has three foci. First, we report the data collected from the full sample (with all surveys included). Second, we explore how "high attainment" schools differed from "low attainment" schools, basing "attainment" on WKCE standardized achievement factored into our approach to sampling for the 2007-08 year. Finally, we look at survey responses by average CLASS ratings for schools.

Some respondents chose to add to multiple-choice and fill-in-the-blank responses. We include participants' open ended comments where they add to survey themes.

Part I: Survey overview

On average, the survey respondents are experienced educators who have taught for an average of almost 15 years. They have taught in their districts for an average of almost 13 years and in their current school assignments for an average of more than 9 years. Figure 1 contains the average number of years' teaching experience, organized by school.

[8] Details about each source of data may be found in the Methodology section.

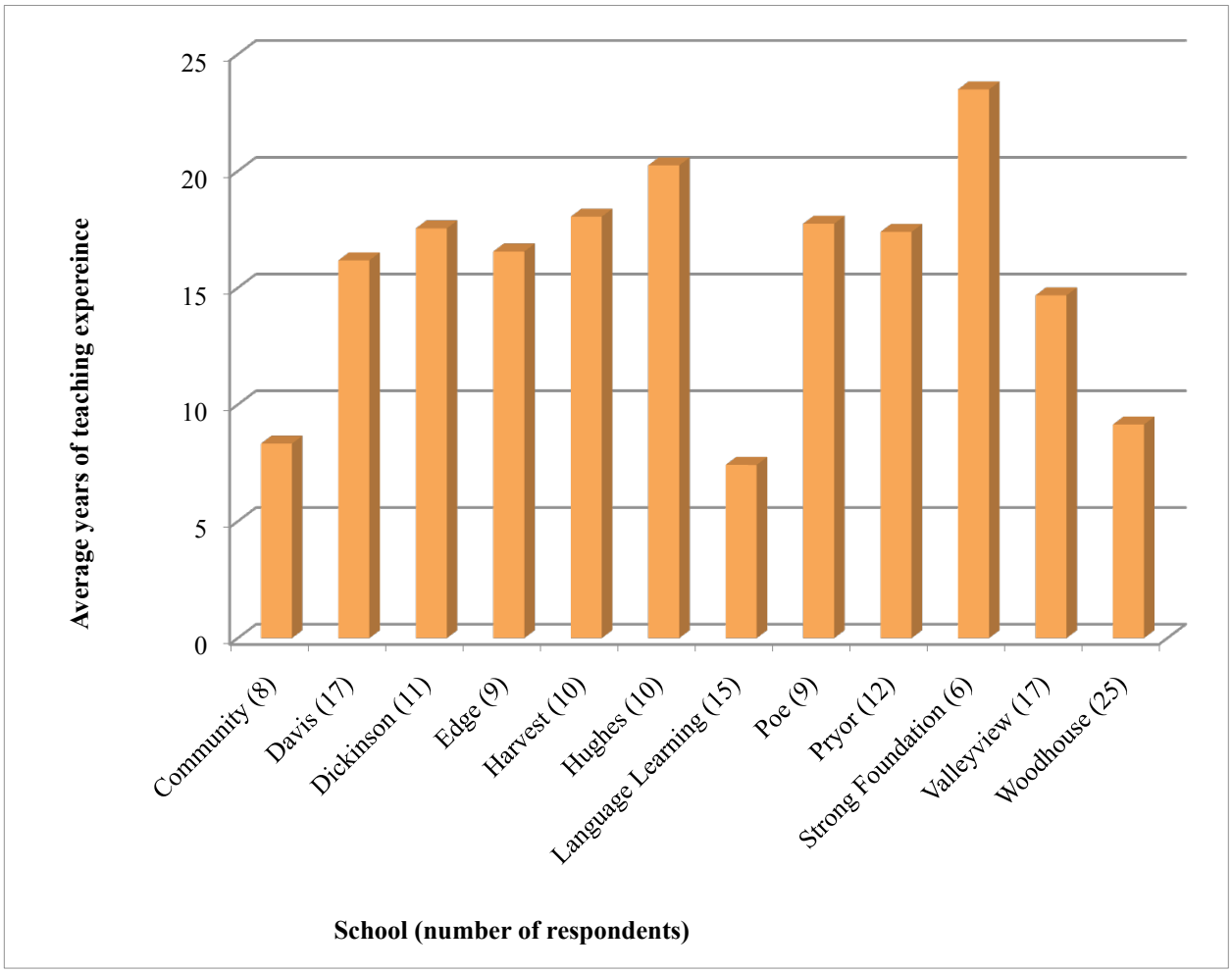

Figure 1. Average years of teaching experience.

As mentioned in the 2006-7 teacher survey report, schools implement SAGE class size reduction in five ways. Schools can configure classrooms as follows:

- 15 students and 1 teacher in a single classroom
- 30 students and 2 teachers in a single classroom divided into two spaces (constituting two 15:1 classrooms)
- 30 students and 2 teachers who team teach
- SAGE core pull-out in which an additional teacher pulls a portion of the class out for instruction in literacy and mathematics
- SAGE core push-in in which an additional teacher comes into the classroom for literacy and mathematics

Although diversity of classroom configurations is expected in light of our sampling strategy, it is interesting how the teachers describe their own configurations (Figure 2). Five of the respondents chose to select multiple configuration options.

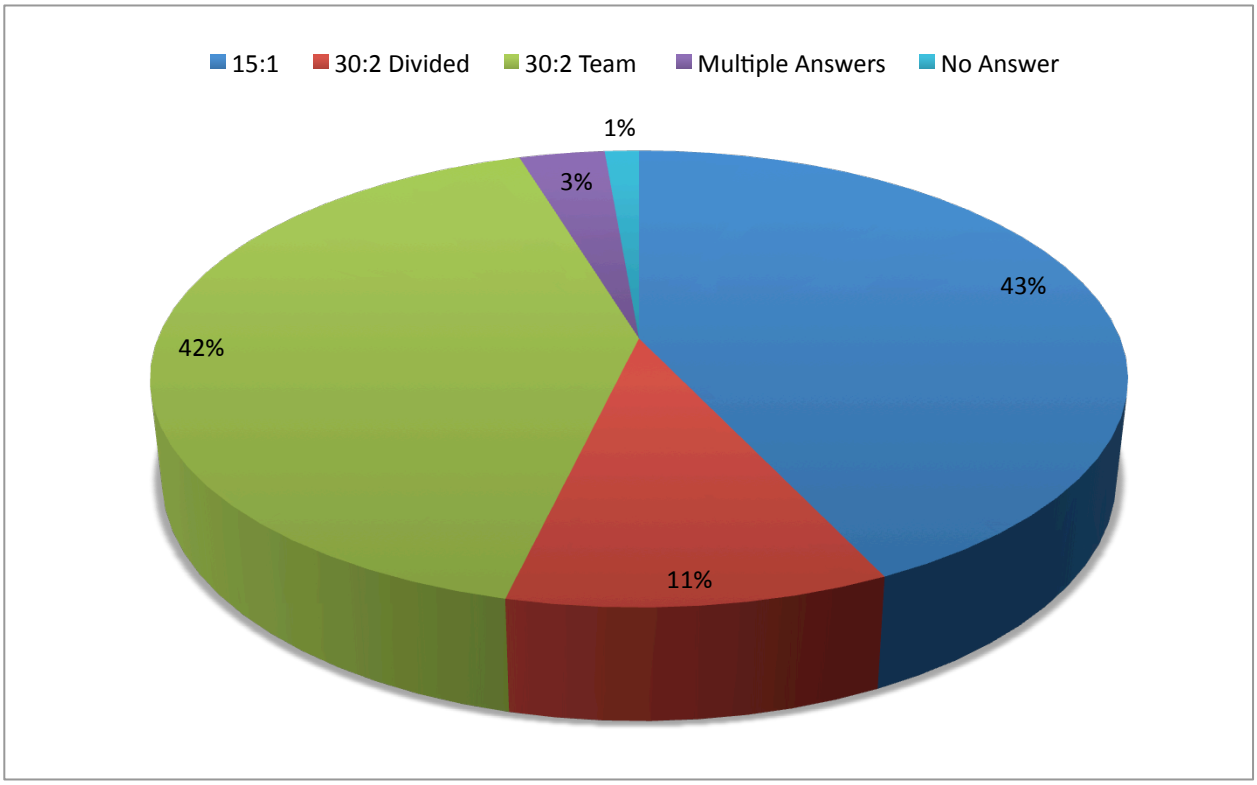

Figure 2. SAGE classroom configurations (n= 149).

Compared to the 2006 -7 sample, there is greater diversity of configurations in the 2007-8 sample, including 9% more divided (or shared) space situations, 22% more team teaching situations, and 29% fewer 15:1 classrooms.

Of the teachers who provide multiple answers to the configuration question (n=5), one considered him or herself simultaneously in a 15:1, 30:2 team, and "divided" configuration. The remaining four taught alone for part of the time and teamed or had kids pulled out of the classroom for part of the time. The point of this discussion is that "configuration" is not always an easy question to answer. For example, teachers who report being in a *"divided classroom"* clarified their answers by saying:

> I share with another teacher. We separate for math and reading. We do small group instruction.
>
> The set-up works great with our team. If we ever have more than 13 kids, there is another teacher to assist.

Teachers who *team teach* also shared additional details:

> Everything is great.
>
> Collaboration is working out great for me.
>
> These questions were very difficult to answer. I wasn't sure what you were trying to ask.
>
> I am in a 30:2 classroom. We teach the students together and do not separate them according to individual class list.

> Our team situation is very positive. We support, share, plan, discuss all the time professionally and socially. 15 to 1 is ideal. 30 to 2 with a positive, well working team is good. We have two main teaching spaces which we use at the same time during math.
>
> I have been with the same partner for 7 years. We are a successful team and work well together.
>
> We share a room. There are not dividers. We are responsible for the whole class.

Teachers from Valleyview are in teams that consist of more than two teachers:

> We have 38 children all together but because of SAGE we have 2 groups of 19 students. 19 kindergarteners and 19 first graders. Because of having a 4 person team our ratio becomes 1 teacher to 10 students. We do something all together and many small group activities.
>
> I teach on an instructional team: 3 teachers, 30 students (K & 1) and 2 classrooms. For the most part, I am based in one classroom, but we fluidly share spaces and have shared ownership of kids.

Teachers in both the divided (also referred to as *shared space*) configuration and the team teaching configuration express concerns about space limitations:

> Because of space limitations two teachers (each with their own class) are assigned to this room.
>
> Our current SAGE situation works well. Our classroom is a little tight. We each teach certain subjects to our entire class and support each other when needed.
>
> I wish there was more space (for science experiments, test-taking, etc.). Feel very cramped and limited.
>
> We are very crowded and noisy. We perform better when we separate.
>
> This year was very frustrating. I was in a SAGE room of a 2nd/3rd grade. Since it was two different grade levels, two different curriculum levels, it was impossible to be the great teacher I am. We always had to be quiet (no grouping, no discussions).
>
> I think the space is limited for 34 1st graders. The classroom is not practical or conducive to learning. Children with special learning needs are too distracted.

And, as noted in the *2006-7 Qualitative Report*, there are many examples of successful practice in all SAGE configurations. This point will be expanded upon later in the report.

Schools handle staffing in the event of absences in a variety of ways. Ideally, team teachers would be provided with substitutes when their partners are absent, but this is not always the case. As illustrated in Figure 3, 64% of respondents report that substitutes are provided 75% of the time or more when one member of their team is sick or otherwise unable to be at school. Fourteen percent of respondents in 30:2 configurations are pulled from their classrooms to cover for absent teachers, but only five percent of team teachers report replacing an absent teacher more than once per semester.

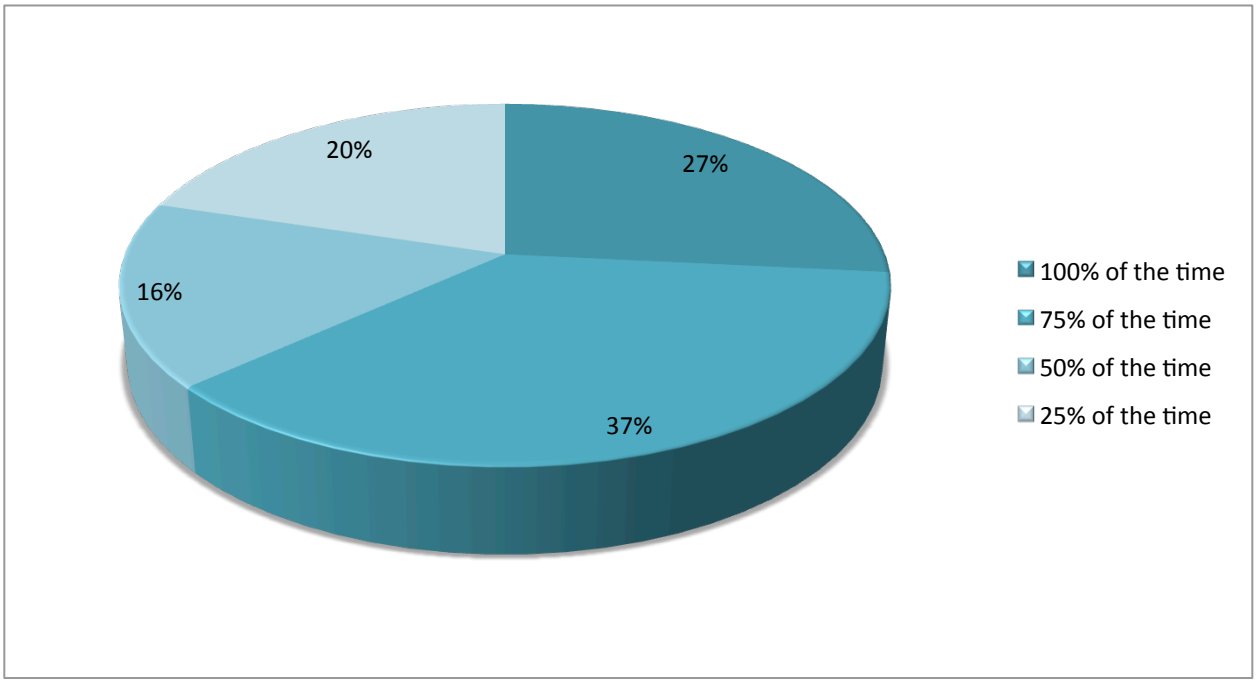

Figure 3. Team-teaching respondents' answers to the question: When one member of your team is sick or otherwise not able to be at school, how often is that teacher replaced with a substitute? (n = 79).

The respondents represent multiple grade levels. Thirteen teach in multi-grade classrooms. One kindergarten-first teacher, five first-second grade teachers, and seven second-third grade teachers led multi-age classrooms.

Compared to other grade levels, fewer teams are concentrated at the kindergarten level in the sample schools. Figure 4 shows the number of configurations and classrooms per grade level (the actual n is aligns with the vertical axis). Each bar also shows the percentage of respondents grade level in each configuration. For example, 13 third grade teachers taught in 30:2 team teaching configurations. This represents 48% of third grade teacher respondents.

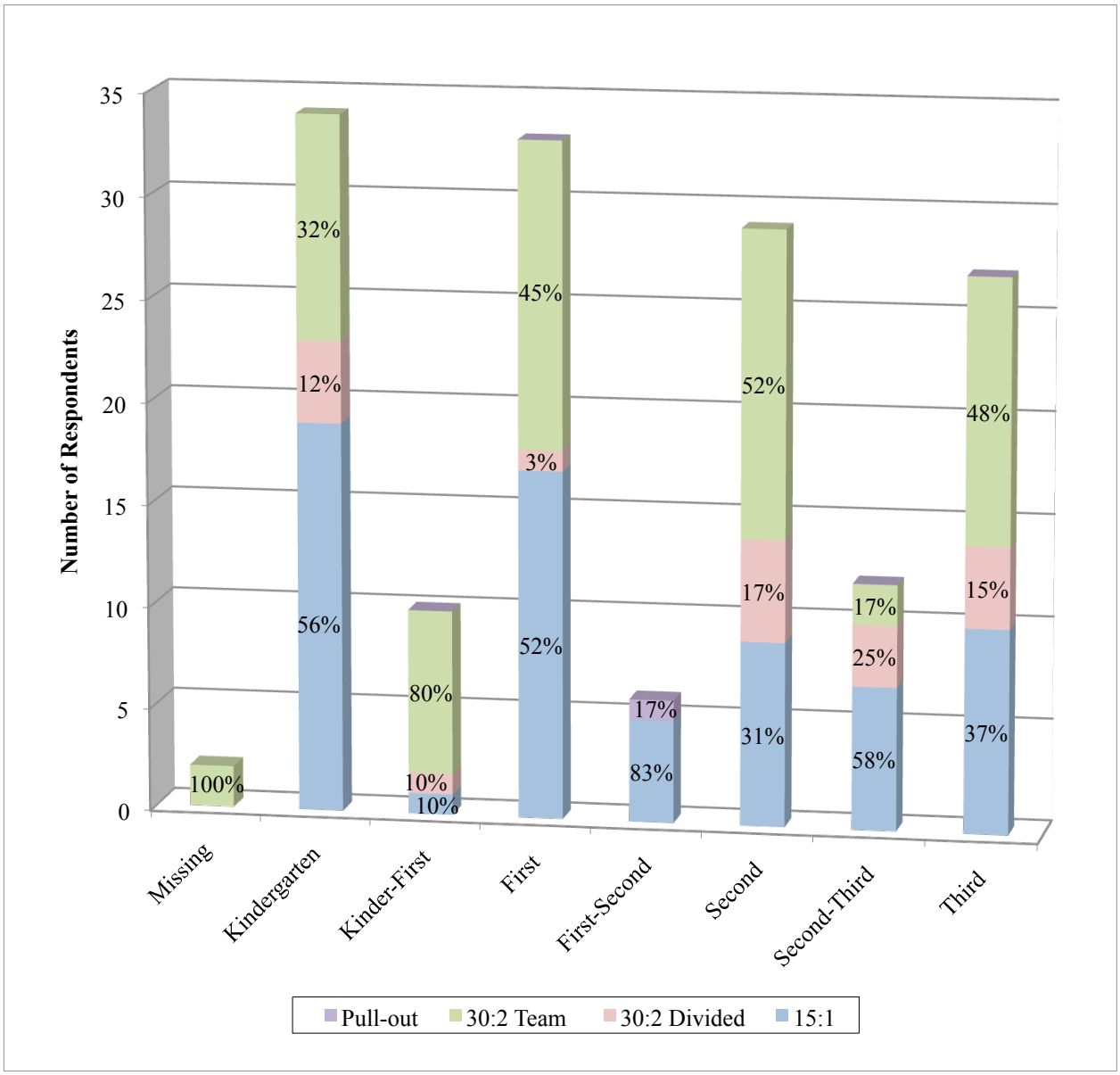

Figure 4. Respondents' classroom configurations by grade level.

In the previous years' sample, 2006-7, a larger percentage of 30:2 teams were concentrated at the kindergarten level and a higher percentage of 15:1 classrooms were concentrated at the second and third grade levels. As Figure 4 illustrates, this is not the case with the 2007-8 sample. In this sample, organizational choices are more evenly distributed across grade levels. (See the *2006-07 Teacher Survey Report* for comparison.) There are some divided classrooms (or "shared space" classrooms) in every grade level except second–third. Eighty percent of the kindergarten-first classrooms are taught by teams. More than 50% of the kindergarten classrooms are 15:1.

Another way to look at class size data is to disregard ratio and configuration and focus on the actual number of students assigned to each teacher. On average, the respondents (n= 149) reported being assigned approximately 16 students. Figure 5 provides the average number of students assigned to the respondents, disaggregated by grade level.

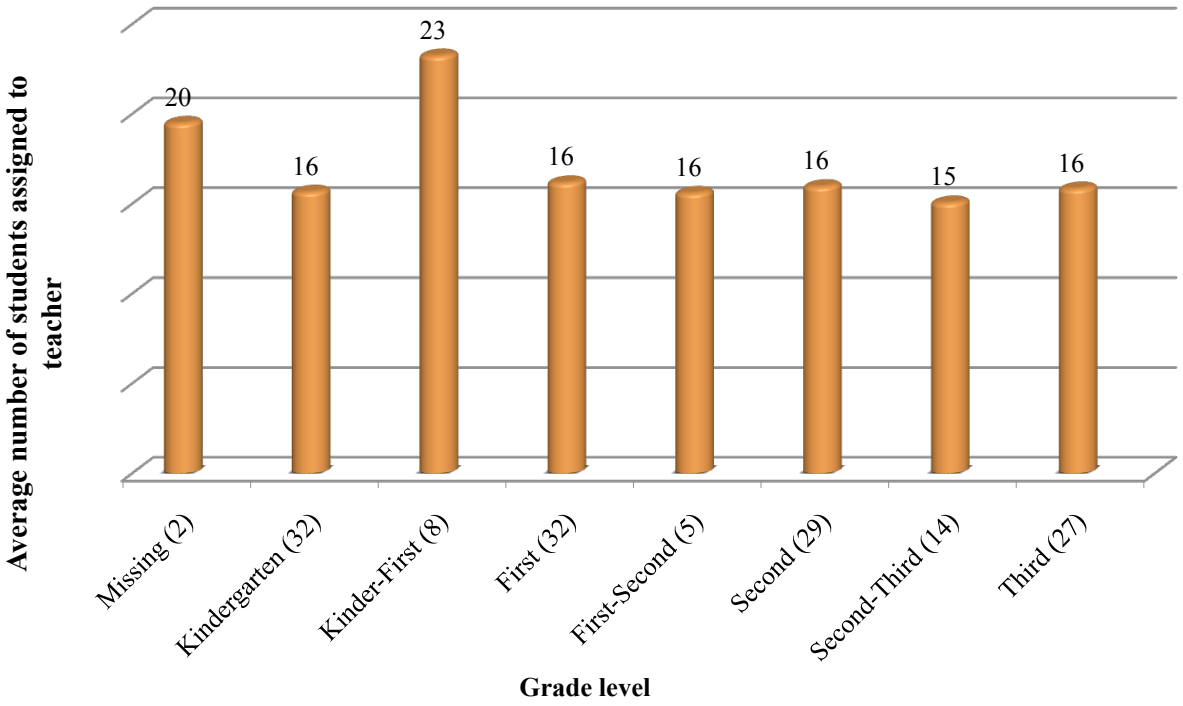

Figure 5. Average number of students per teacher (by grade level).

The average number of students is highest for kindergarten-first grade. At first glance, this finding could be confusing. However, from our work in classrooms we know that schools approach teacher assignments differently. A teacher from Pryor—who reports teaching 23 children—notes that 8 of these children receive special education services. One Valleyview teacher notes that although there are 13 students on her roster, she actually shares responsibility for 40 students.

Since the concept of assigning students to individual teachers and how that relates to instructional configuration is not consistent from school to school, teachers apply local interpretations to answering numbers questions.

Professional development

One of the "pillars" of SAGE is professional development (PD) and teacher evaluation. We asked survey respondents to mark all of the topics and formats (from a list of options) that applied to their professional development activities over a three-year period. The primary format for PD is "presentations or workshops" for all PD topics. Figure 6 shows the proportional distribution of participation in PD on each topic. Over 80% of respondents report being involved with PD on "strategies for teaching specific content."

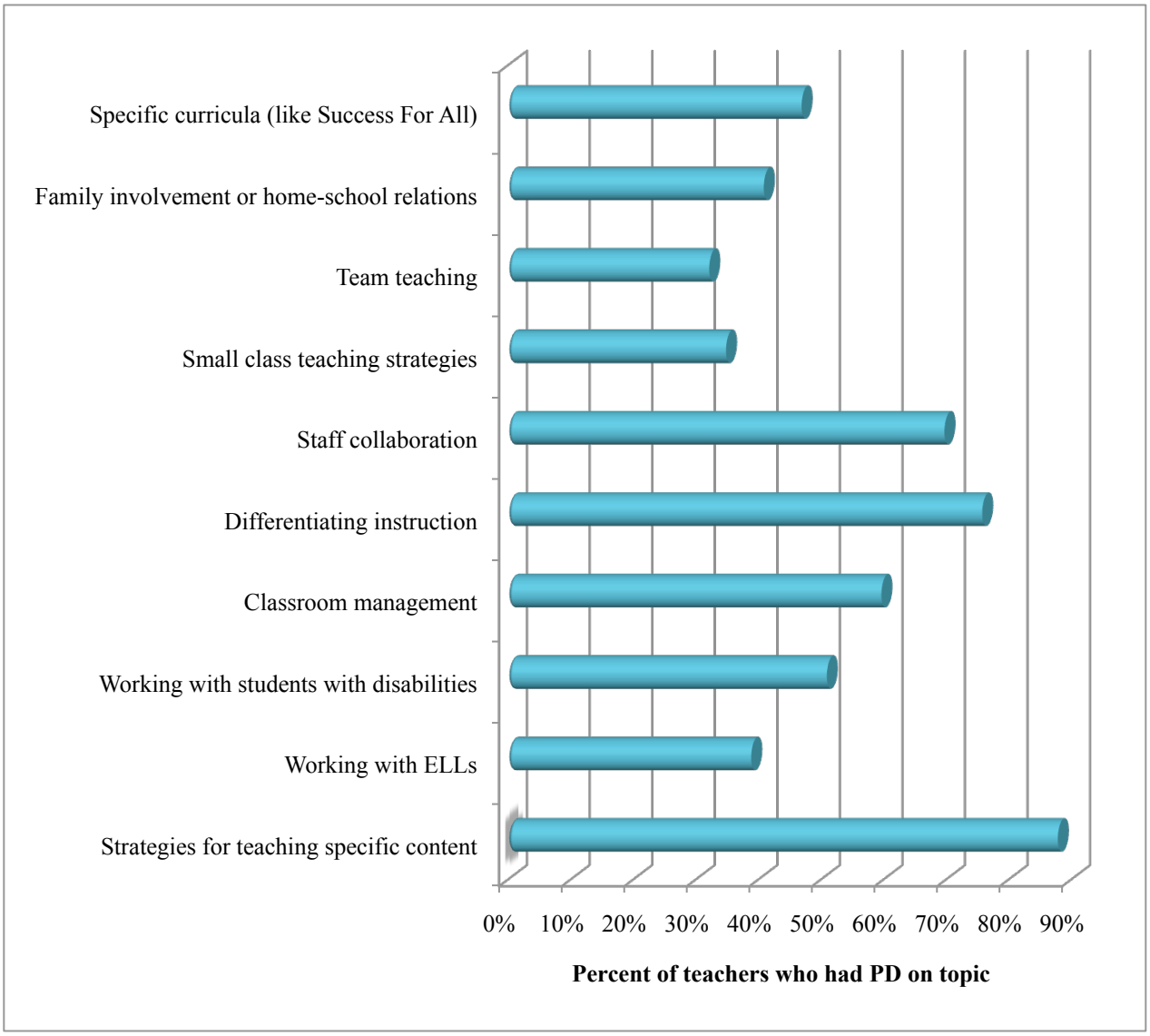

Figure 6. Teachers' professional development experiences 2005–08.

Teachers were also asked to comment on how useful they would find the following SAGE-related PD topics (Figure 7).

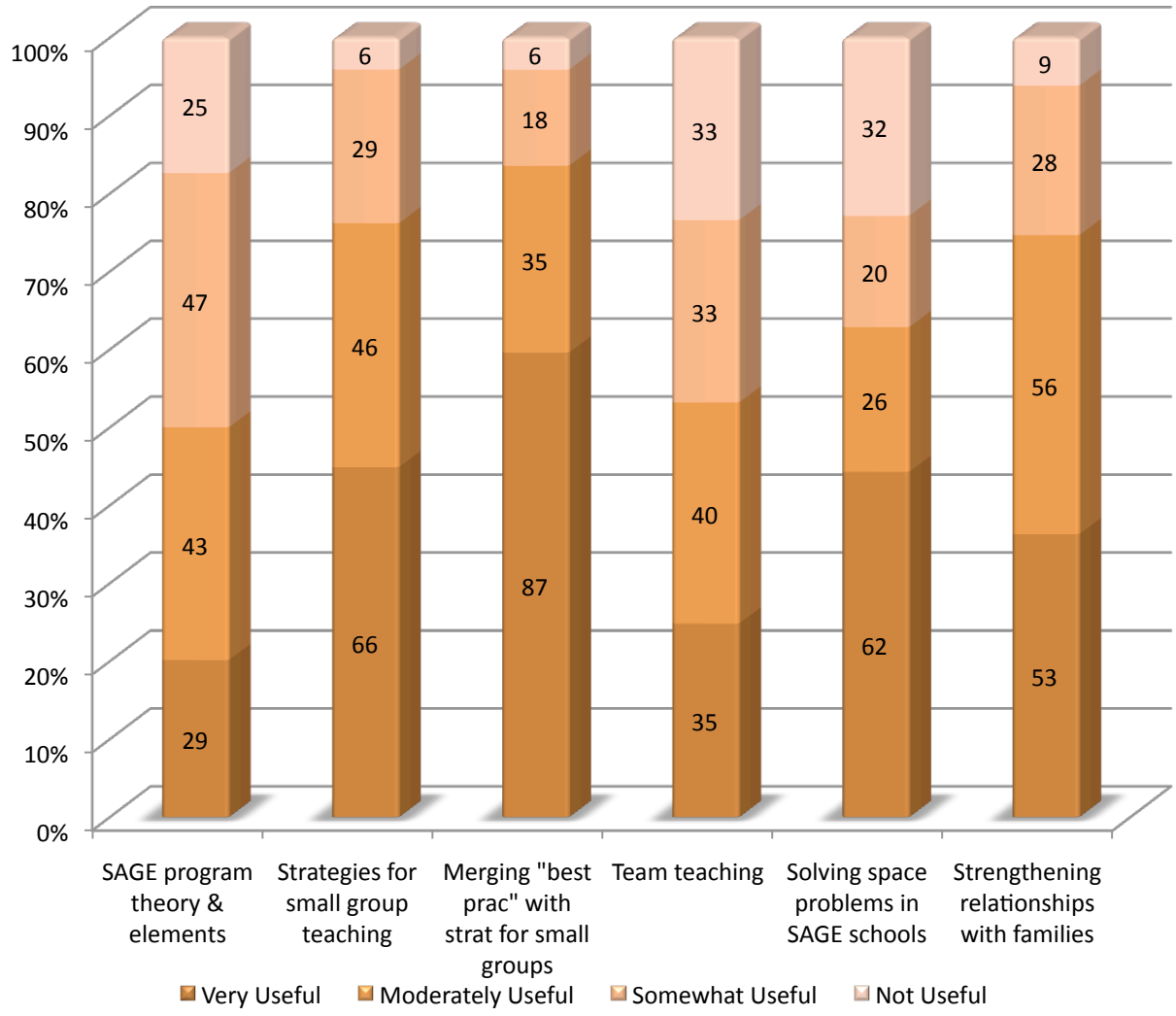

Figure 7. Professional development topics, rated by "usefulness."

Respondents indicated that they would be interested in learning about a variety of professional development topics related to SAGE. The highest level of interest was related to working with small groups – both in terms of general approaches and in relation to work with "best practices." More than two-thirds of the respondents were at least moderately interested in learning about working with families, more than two-thirds were interested in solving space problems, and at least half the teachers wished to learn more about team teaching.

On average, participants in the survey reported that they meet with their principal to discuss assessment 2 or 3 times during the school year. According to Figure 8, discussing assessment results is a regular occurrence across grade levels but is most frequently done in third grade, when students take the state reading test and many schools begin to focus on the WKCE.

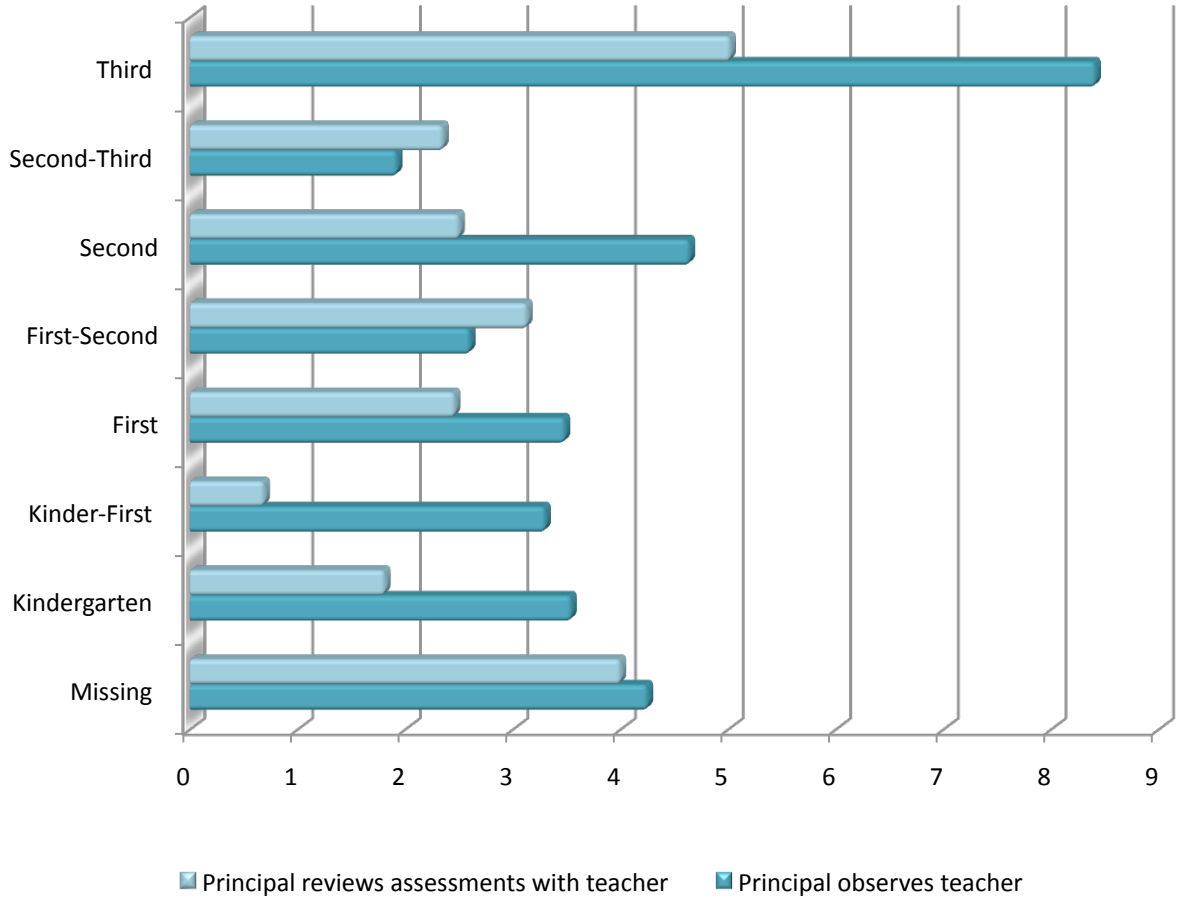

Figure 8. Teacher estimates of the average times per year they review assessment scores with principals and are observed by principals, by grade.

Home-school-community connections are also a part of SAGE. Figure 9 shows teacher reports of how often they participate in each home-school linking activity.

In addition to teacher experience, classroom configuration and composition, professional development and evaluation, and family and community connections, the remainder of the report contains data about team teaching and curriculum. Although the primary focus of the next two sections is school achievement level and CLASS scores, overview data are provided as well.

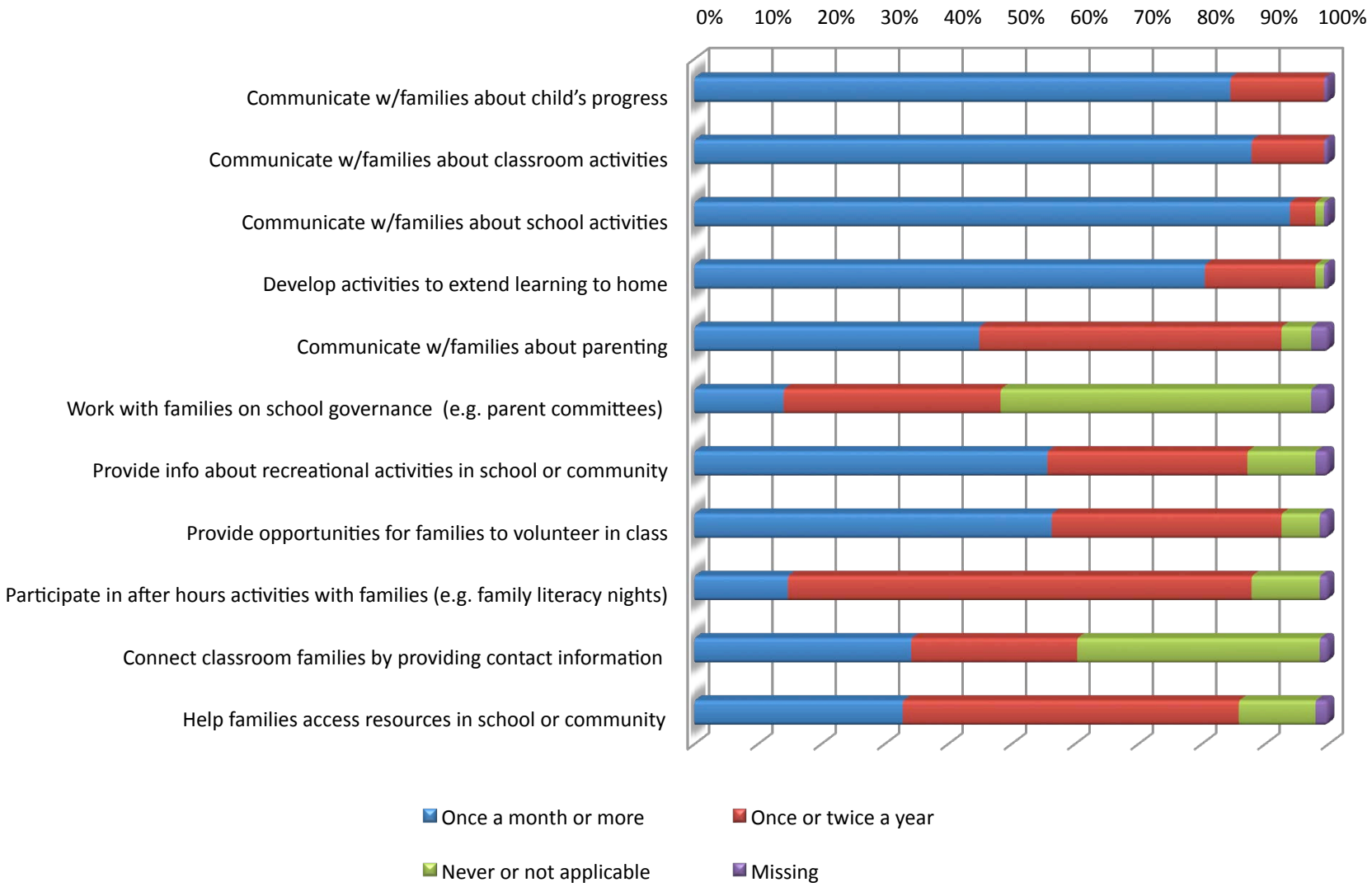

Figure 9. Respondents' frequency of participation in home-school connecting activities.

Part II: Survey results and school attainment levels

As detailed in the section of the report on Methodology, our sampling strategy for the 2007-08 data collection year consisted of selecting schools in four implementation/achievement categories. Schools were either mixed implementation (using a variety of SAGE configurations) or high density 15:1 implementation. Schools were either high or low achieving based on WKCE performance. The sample matrix is presented in Table 7.

Table 7

Twelve school sample matrix

	Mixed Implementation Schools	**High Density 15:1 Implementation Schools**
High Achieving	Poe (Mallard)[9] Davis (Mallard) Edge (Mallard)	Hughes (Maxwell) Language Learning (Mallard) Dickinson (Mallard)
Low Achieving	Woodhouse (Mallard) Harvest (Mallard)	Strong Foundation Academy (Mallard) Community (Mallard) Valleyview (Maxwell) Pryor (Mallard)

In this section, we compare schools that fall into the high achieving and low achieving categories. Do schools with high attainment and schools with low attainment conform to identifiable patterns of structure and organization?

Teaching experience and classroom configuration

Figure 10 shows the average number of years of teaching experience, organized by achievement category. The average level of experience in most of the schools was high (more than 15 years). According to this sample of teachers, "years of experience" does not have a direct relationship to school achievement level. The means are very similar for both attainment categories—more than 17 years in low attainment schools and more than 15 years in high attainment schools.

The school with the *least* senior staff, Language Learning Academy, is a high achieving school. Strong Foundation Academy, with the *most* senior staff, is a low achieving school. This illustrates that teacher experience alone provides little insight into classroom quality. Past research shows that structural approaches to understanding classroom quality (such as years of teaching experience and classroom configuration) are limited in usefulness.[10] To gain a fuller understanding of quality, an insider's perspective on the classroom is required.

[9] All school names are pseudonyms.
[10] See the literature review for details on this.

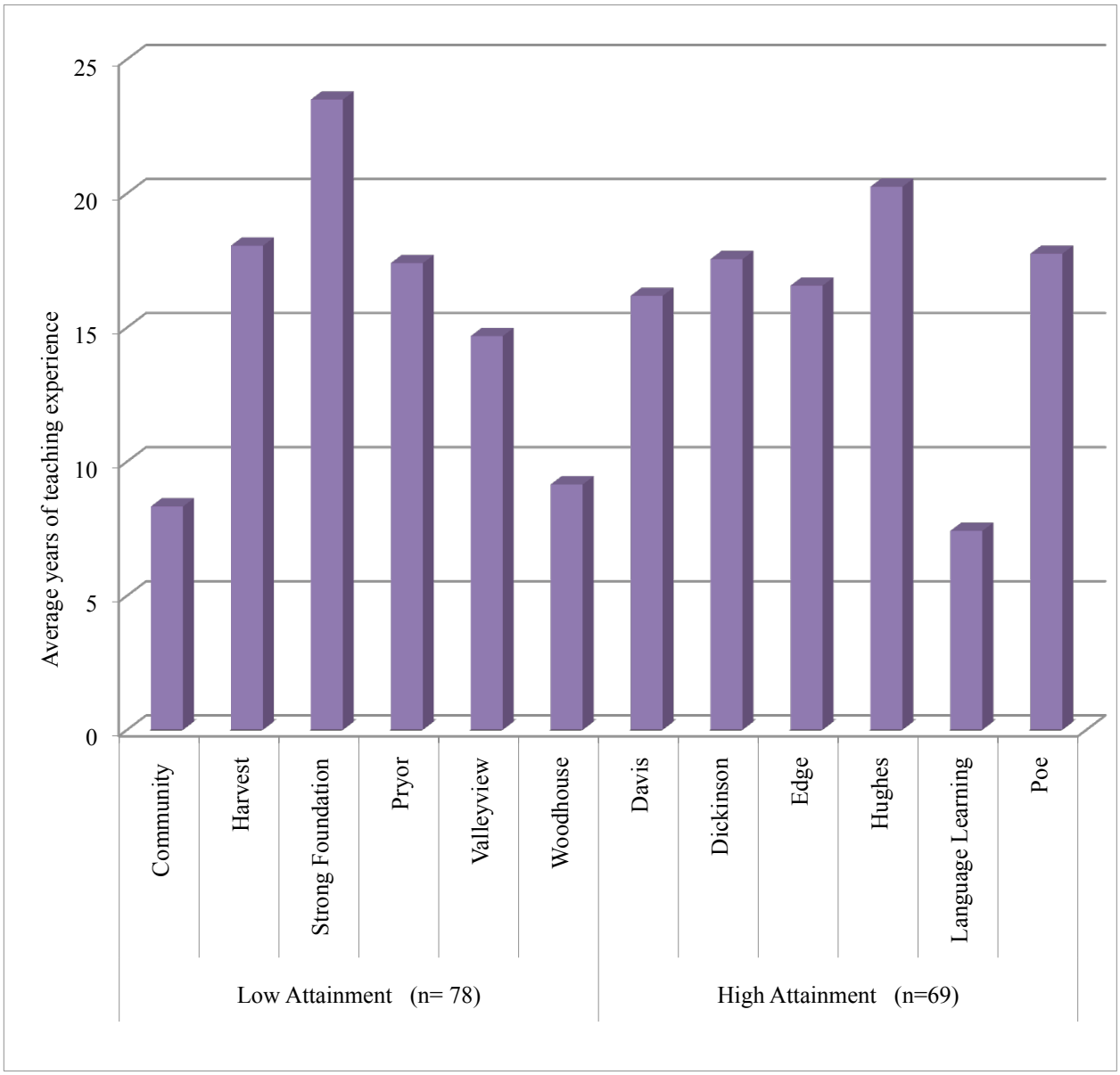

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Figure10. Average years of teaching experience by attainment level.

As illustrated in Figure 11, low attainment schools are more likely to have a greater variety of configurations than high attainment schools. High attainment schools have more 15:1 configurations. This suggests a discrepancy in available classroom space between the two achievement categories. Proportionally, low attainment schools are more likely than high attainment schools to create divided spaces for 30:2 teaching. High attainment schools are more likely to engage team teaching in 30:2 situations. These findings have implications for understanding school culture, quality and outcomes and we will explore them in more complexity later in the report.

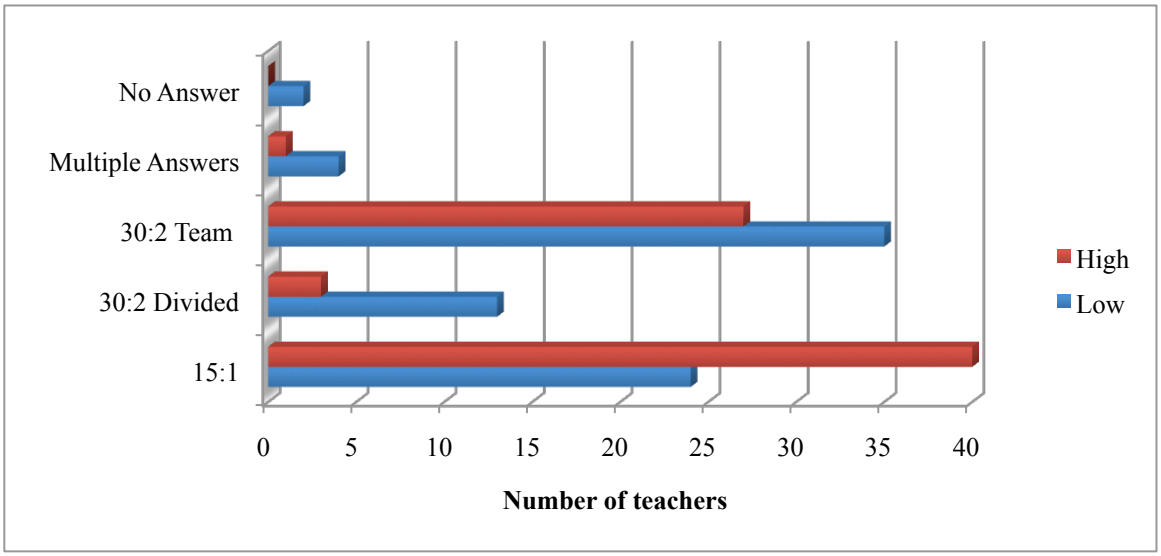

Figure 11. Classroom configurations by attainment levels.

With 42% of SAGE classrooms team teaching, it becomes essential to consider practices enabling coordinated practice. The next section gives important contextual information regarding time for collaboration.

Instructional time

How do teachers in team taught classrooms allocate their time? Are there differences by attainment level? In team taught classrooms, approaches to instructional support, emotional support, and classroom organization have to be reconciled for classrooms to function optimally. Figures 12 shows how team teachers organize time in high and low attainment schools.

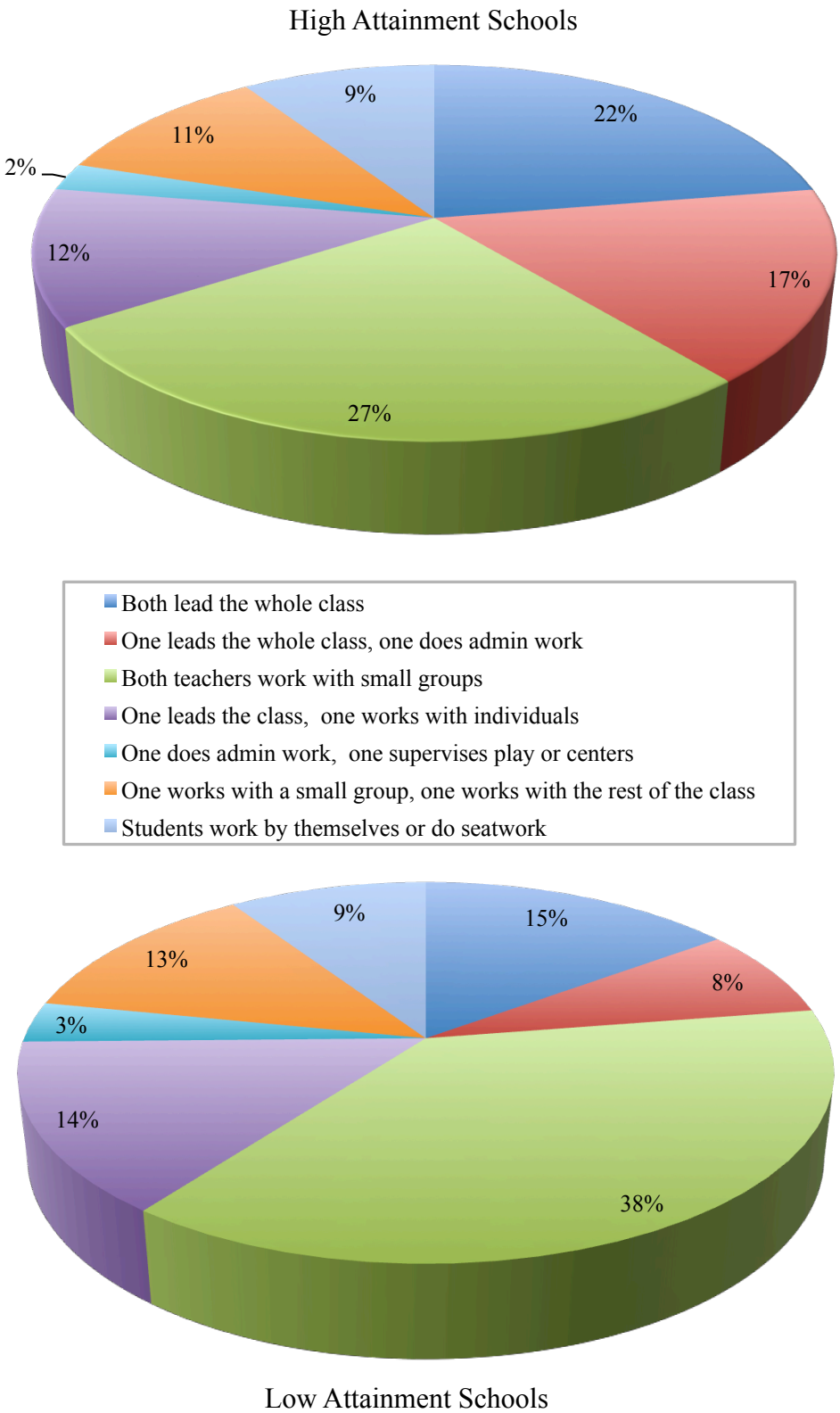

Figure 12. Team teachers' time allocation.

A major concern in earlier SAGE studies (see Graue et al., 2007; 2008) was "tag team teaching," where one teacher teaches the whole group while the other attends to the organizational work of the classroom. We assumed that tag team teaching was not best practice as it under-utilized the resource provided by SAGE. This year, we found that like with so much in this research, when considering the links between practices, quality, and outcomes, it depends. In other words, the efficacy of practices is related to the contexts in which they are enacted. Teacher survey responses indicated that teachers in high attainment schools were twice as likely as those in low attainment schools to have only one teacher involved in instruction of the large group. We will illustrate later in the report some examples of high quality use of this strategy. Teachers in low attainment schools spent a larger proportion of their time with both teachers working in small groups than their peers in high attaining schools. Given the wealth of research promoting small group instruction detailed in previous reports, it seems counterintuitive that low performing schools would be *more* engaged in implementing instructional best practices than high performing classrooms. But it may be that small groups are part of the organizational culture of schools enacting highly-structured curricula that leaves little room for developing rich conversations and critical thinking. We explain this finding in the context of school organizational culture later in the report.

As discussed in the first section of the report, on average, teachers said they were observed by their principal between 2 and 3 times per year. This average masks the variation in principal observation by school. Figure 13 shows the range, which varies between "about once per year" at Edge to "about 12 times per year" at Community. It would be important to learn about whether other professionals (coaches, curriculum generalists, peers, etc.) observe teaching and how administrative and collegial observations inform classroom practice.

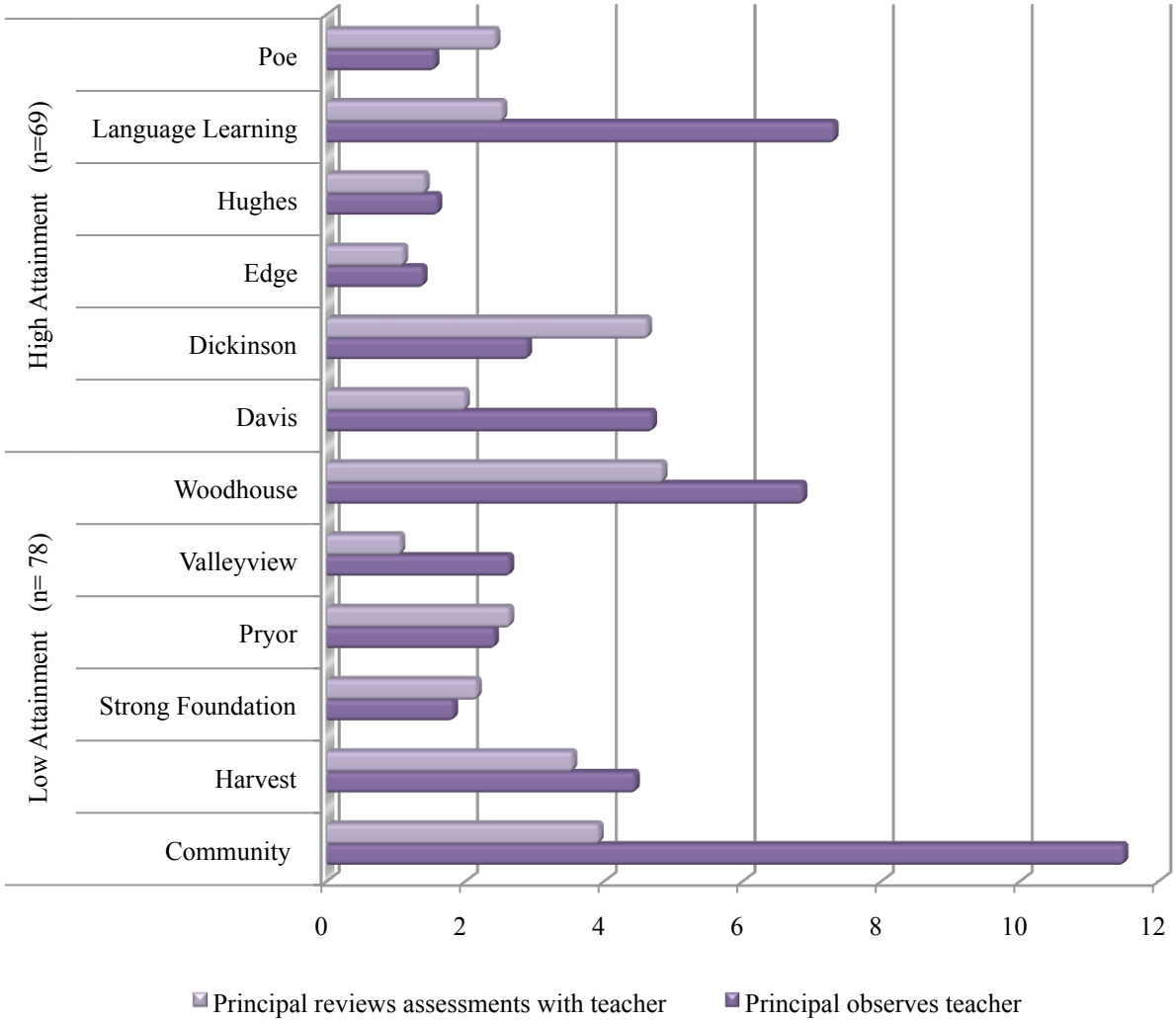

Figure 13. Teacher estimates of the average number of times per year they review student assessment scores with principals and are observed by their principals, by attainment level and school.

Part III: Survey results and CLASS scores

After administering the CLASS in all of the case study classrooms in the sample, it became evident that analysis by attainment category only tells a partial story. School attainment category did not always align with observed classroom quality. Since the remainder of this report focuses on classroom quality, we thought it would be wise to reanalyze the survey results by CLASS, particularly because Valleyview and Woodhouse both scored significantly higher in classroom quality than the other low attainment schools (see Table 7).

In this section, we analyze key survey constructs using average CLASS scores. Schools have been broken into four categories:

- High CLASS (rounded average of 6), *n* = 27 respondents
  - Hughes
  - Valleyview
- High moderate CLASS (rounded average of 5), *n* = 77 respondents
  - Language Learning
  - Davis
  - Woodhouse
  - Dickinson
  - Edge
- Moderate CLASS (rounded average of 4), *n* = 31 respondents
  - Pryor
  - Poe
  - Harvest
- Low Moderate CLASS (rounded average of 3), *n* = 14 respondents
  - Community
  - Strong Foundation

The following figure depicts configuration distribution (Figure 14) by average CLASS grouping.

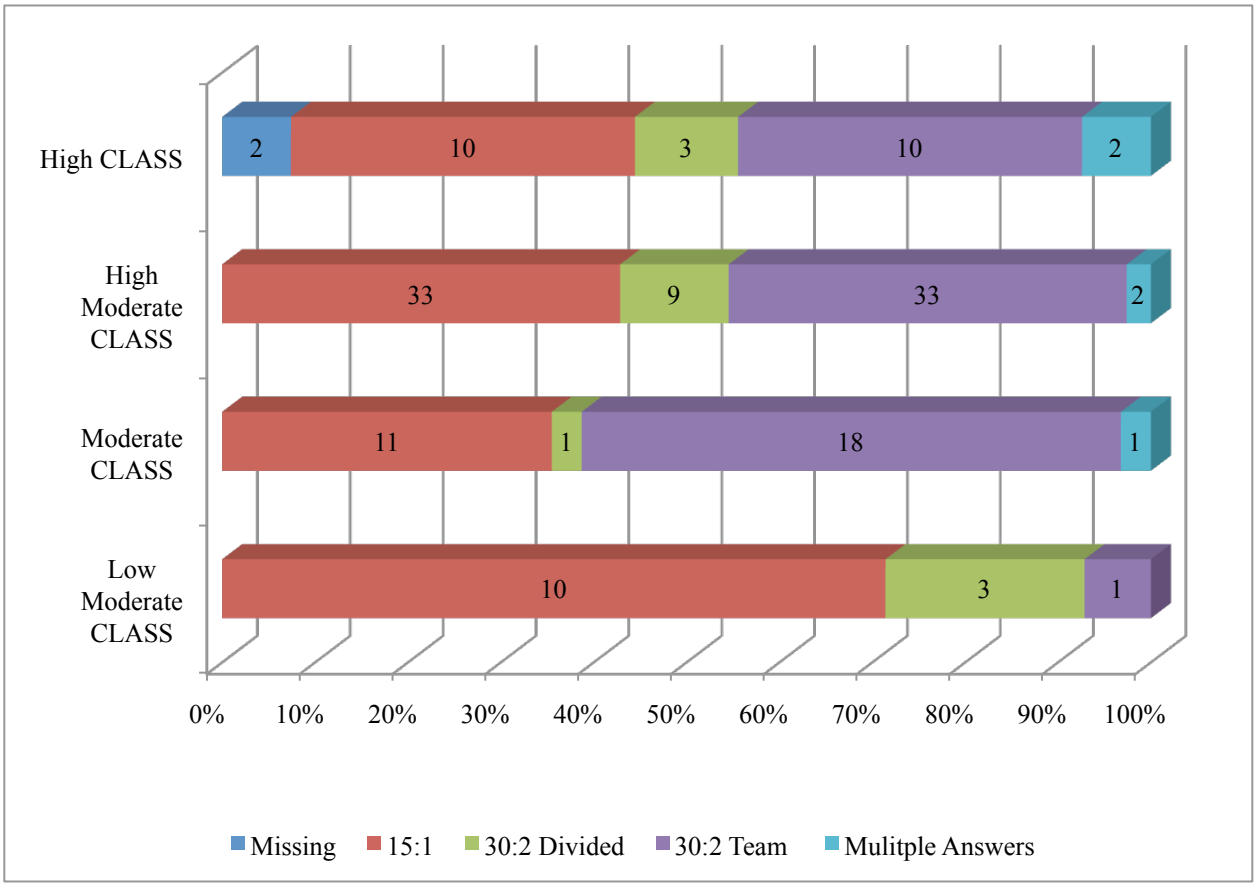

Figure 14. Configuration by CLASS ratings.

Schools with the highest quality ratings have many classroom configurations. There was not one type of configuration that set the stage for high quality—all could make SAGE work well. On the other hand, there were proportionally more 15:1 classrooms in the bottom tier of quality practice. At first glance, this seems counterintuitive given the perception that 15:1 is an ideal class size form. But notably, the schools in this tier had low and sometimes declining enrollments due in part to neighborhood charter encroachment.[11] There simply was plenty of space in the lowest quality schools. Moderate quality classrooms, however, were more likely to be team teaching classrooms than single-teacher models. The next figure (Figure 15) reveals more about the particulars of team teaching practices and quality.

[11] Contextual and community factors contributing to SAGE practice are presented later in the results section and in Appendix E, *Portraits of Quality in 12 SAGE Schools*.

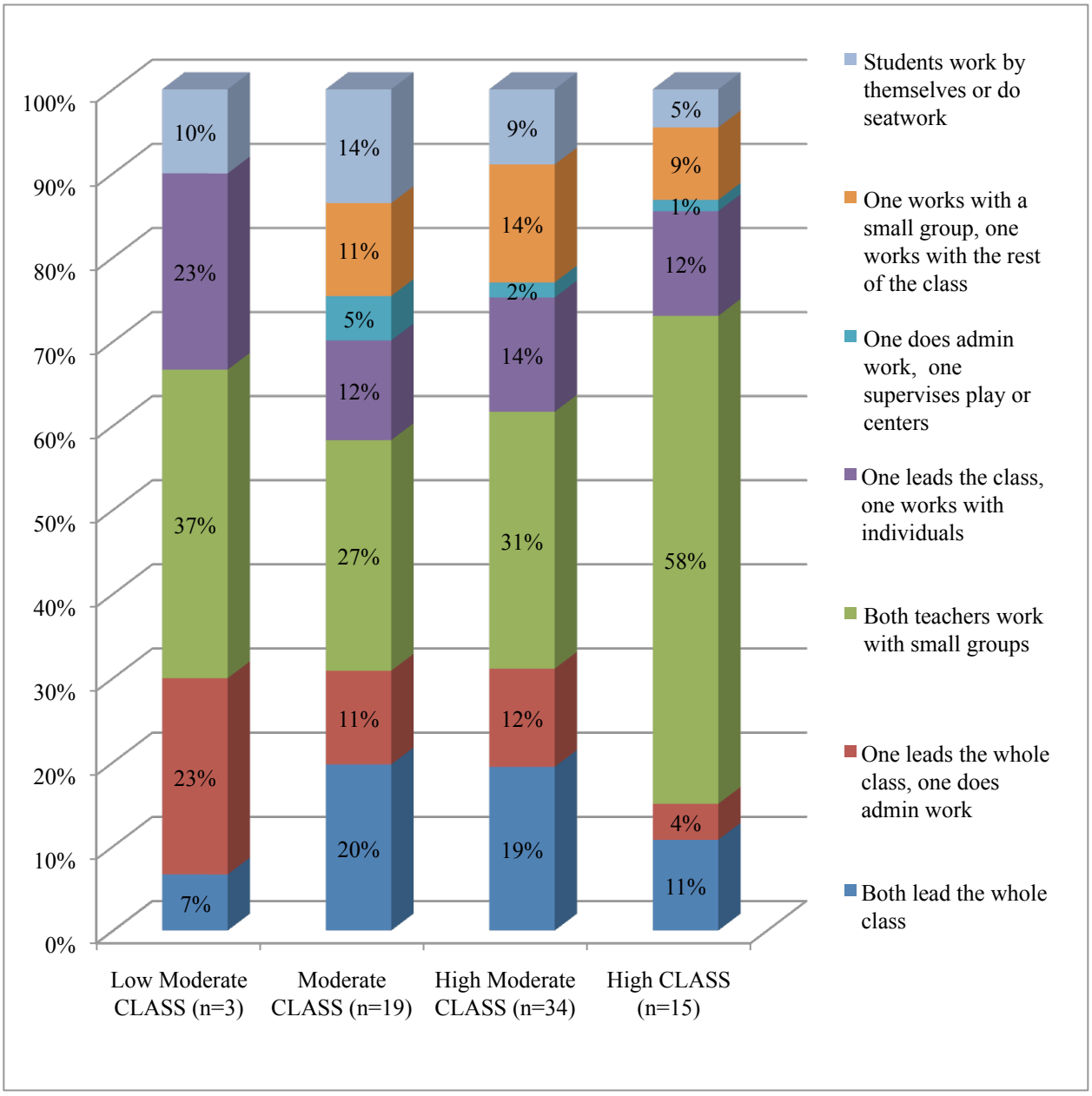

Figure 15. Team teachers' time allocation by CLASS.

Respondents from the schools with High CLASS scores report team teachers spend the largest proportion of their days with both teachers working with small groups. There was some, but proportionally little, tag teaming within High CLASS classrooms and a substantial proportion of time (nearly a quarter of the day) spent tag teaming in Low Moderate quality classrooms. The lowest quality classrooms in our sample also invested the resource of a second teacher toward working with individuals needing assistance while the other teacher was responsible for the rest of the class.

Next, we consider some of the professional development opportunities across sample schools that—in part—shaped classroom practices such as these. Data showing teachers' experiences with a range of supports are below (Figure 16).

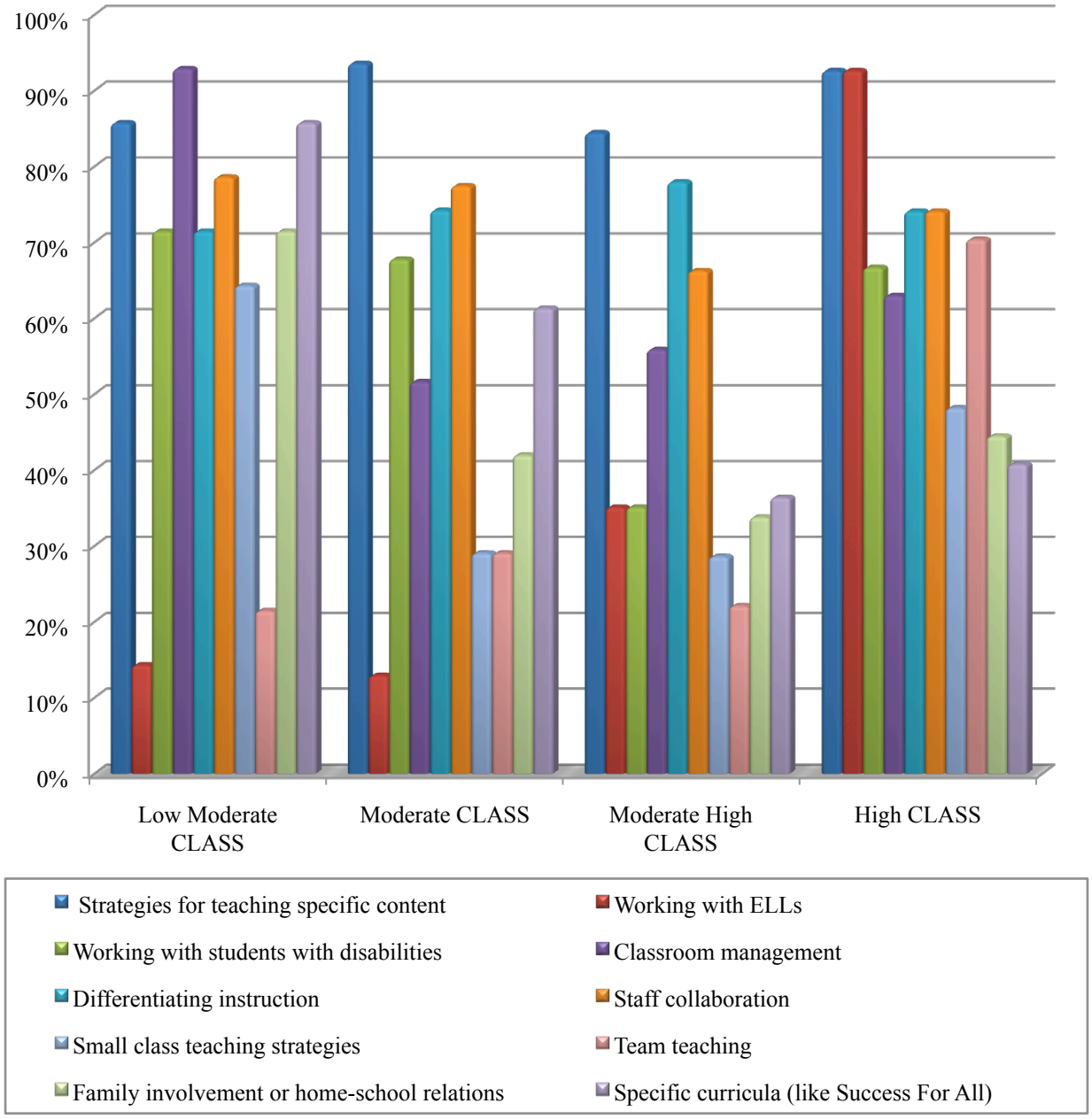

Figure 16. Percentage of teachers reporting experience with professional development topics 2005–8.

High CLASS schools are supported with a wealth of professional development topics. In high quality sample classrooms, teachers are likely to have had training in team teaching strategies. These schools also have had significant development in working with ELL students. This makes sense, as High CLASS schools (Hughes and Valleyview) have high proportions of ELL learners. One school in the High Moderate CLASS group (Woodhouse) defines itself as having a large ELL population, while a second High Moderate school (Davis) has many Spanish-speaking students yet takes up an English immersion model. There are very few ELL's in the Moderate and Low Moderate groups.

It is a hopeful sign that Low Moderate quality schools are beginning to receive stronger investments in professional development. The middle range of quality—Moderate and High Moderate CLASS schools—have received less rich professional development offerings than the remainder of the sample. It is surprising that Moderate CLASS schools have not received more instruction in team teaching given the concentration of 30:2 team teaching configurations in this category of quality. Moderate CLASS schools have the least frequent classroom observations by principals while low moderate class schools are most likely to have teacher principal discussions about assessments, as depicted below in Figure 17.

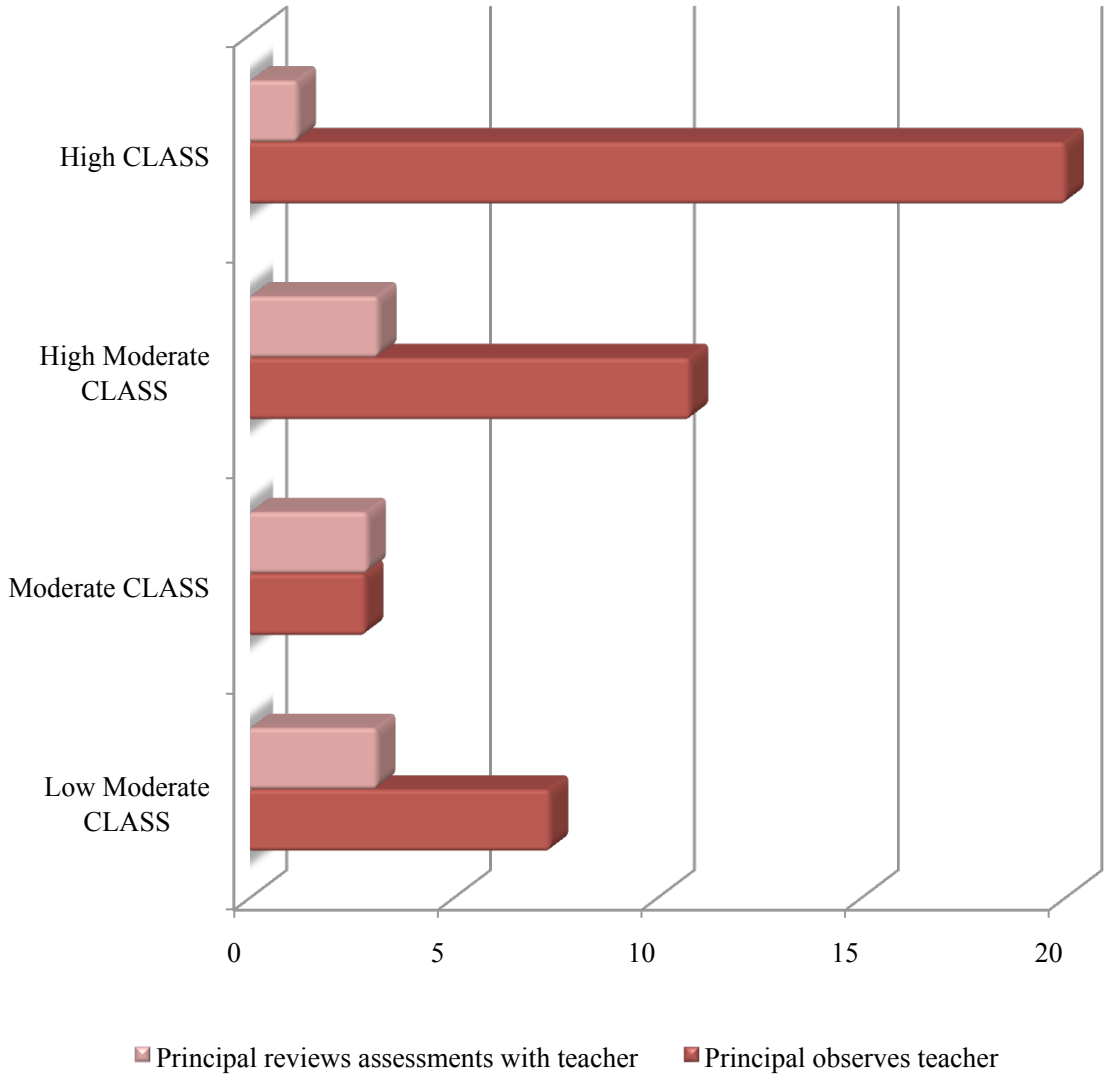

Figure 17. Teacher estimates of the average times per year they review assessment scores with principals and are observed by the principal, by CLASS.

The most salient feature of this figure is the time investment by principals in the life of the classroom. There is a significant relationship for high quality schools in this sample between emotionally supportive, well-organized, instructionally rich learning environments and administrators' observation time in these classrooms.

In Summary

The analysis of teachers' survey reports lays the groundwork for considering how teaching experience, configuration, instructional practices, time, and administrative and professional development support are related to achievement and classroom quality. Analyses across these two variables—attainment and classroom quality—present different angles on understanding what is working in SAGE and what can work better. Attainment and quality are like mirror images of one another. They may reflect each other, or because of shifts in school-level systems, images may be refracted. Both must be considered to understand what works (and how it works) in SAGE schools.

So why not stop here? We have pointed to many patterns within the program that exist with different types of implementation by achievement and configuration. We have identified some key places within SAGE schools where particular administrative, instructional and professional development practices are lacking. However, there is more to understanding the puzzle of high quality, synergistic school practices than can be deciphered with the survey.

A survey analysis alone cannot explain *how* the school works as a system within a broader community. Systemic success requires that all pieces work together. It is these pieces that we turn to next.

Fieldwork Results: Synergy in SAGE Schools

> 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, 2003, p. 160)

Across five years of research in Wisconsin SAGE schools, we have taken an approach that recognized that teaching practices in SAGE classrooms are nested within contexts that both facilitate and limit the activation of class size reduction. From this perspective SAGE is implemented in distinct ecologies of practice that include individuals and teams of teachers, the physical space of the school, the relation of the classroom instruction to supplementary support, and administrative strategies used to maximize learning. To foreground our analysis of the data collected in the 2007-8 school year, we illustrate our conceptualization of these ecologies below.

Most analyses of class size reduction focus on the *classroom* – it is seen as a reform located at the instructional level. This makes sense from a variety of perspectives – that CSR increases the intensity of instruction, that teachers have better knowledge of students on which to base their teaching, or that students are more easily socialized into the culture of the school in smaller groups. Therefore a key ecology in SAGE's implementation is the classroom. Within the classroom we are concerned with instructional materials and strategies, teacher beliefs, skills, and dispositions, space utilization, staff utilization, classroom organization, quality of relationships among students and staff, and student engagement with learning.

Attention to the classroom alone is incomplete however. As anyone who has worked in a school knows, classroom practice and learning are made possible by *administrative choices* outside the classroom. They are bounded by state and district mandates, administrative designs and the view of leadership responsibilities, past school history and the demands for today's action. They play out in the life of the classroom in terms of space allocation, scheduling and staff assignments, the design of professional development and teacher evaluation.

In between the classroom and administrative strategies is what we call *classroom plus* – the elements of practice that strengthen the resources available in the classroom. These vary by school. In one school the "plus" might be a professional learning community, in another it could be a collaborative staffing model, and in another it might be long standing relationships among teachers that facilitate or inhibit working together. Classroom plus speaks to the relationships that allow SAGE to support learning and development.

These three ecologies, classroom, administrative strategies, and classroom plus, enable a fourth – *student learning*. Thinking relationally, and in visual terms, the three large contexts must be aligned for a stable context for student learning. They need to be integrated within the school to produce ideal learning conditions. To foreground our analysis of the data collected in the 2007-8 school year, we illustrate our conceptualization of these ecologies in Figure 18 and illustrate our understanding throughout this report:

Figure 18. School-integrated ecologies of SAGE implementation.

Conceptually, the contexts are nested and share the same bases of support. Drawing energy from each other, the contexts build inward and upward with a focus on student outcomes. Ultimately children's achievement is supported by the synergy of resources provided through administrative strategies, classroom plus, and the classroom.

The remainder of this report illustrates our understanding of these relationships and the implications they have for SAGE's success. We begin by exploring the macro influences of administration, recognizing that it would be equally valid to begin with the classroom. We make this choice with the hope that readers will appreciate the role that forces outside the classroom have on a reform like class size reduction. Following Blatchford, we structure our discussion around the idea that "it is not just down to the teacher." We look thematically on implementation in our sample schools, examining particularly closely the practices in classrooms and schools with highly rated classroom quality. We contrast these positive examples of SAGE implementation with instances in schools and classrooms that had low ratings on classroom quality. These lessons of best practice and negative instances provide tools for the state, districts, schools and teachers who are interested in enhancing the use of SAGE funding[12].

[12] Due to the number of classrooms in the sample, we cannot provide detailed information about each one in the results section. See Appendix E for portraits of each of the 12 2007-8 sample schools.

School & Administrative Practices

One of the most persistent concerns voiced in the last five years has been focused on the space needs in SAGE classrooms. While one might assume that a class size reduction would *increase* the space available for instruction, we found that the increase in sections K-3 that came with SAGE funding meant that schools often had to scramble to find adequate space. The more highly rated classrooms were characterized by beautifully developed instructional spaces where the environment contributed to classroom management.

HIGH QUALITY SPACES:




Lower quality classrooms were often exceedingly small, separated with temporary dividers, lower quality teamed classrooms, there were sometimes doubles of equipment and furniture that could be shared, thus limiting free movement of students and prohibiting easily structuring instructional formats like partner work, small group work, and learning centers.

LOWER QUALITY SPACES:

While the physical space of the school and classroom was set in bricks and mortar, its use was brought alive through administrative and instructional decision-making. We wish to emphasize, however, that there are many factors that contribute to quality within SAGE classrooms. Many things are being done well and there is much room for improvement. Space constraints alone do not determine the quality of the program. In fact, we have seen excellent quality practice in challenging circumstances. What we wish to emphasize throughout this report is that administrative and teacher practice are connected and that all educators do have choices about how to educate children.

The metaphors that administrators and teachers use to see their worlds are powerful. Does the administrator see his or her main role more as that of encourager? Disciplinarian? Test score improver? Instructional leader? Does the teacher see his or her primary role as providing a safe space for children? Managing behavior? Teaching discrete academic skills? Developing students socially and intellectually? The answers to these questions have crucial implications for what SAGE practice is in schools across the state of Wisconsin.

Allocation of space, schedule design, staffing arrangements, and leadership patterns all contributed to or detracted from the potential value added by SAGE. For this reason, we focus next on administrative strategies.

Leadership with Vision

At Hughes, Language Learning, and Valleyview, the schools that housed the most highly rated classrooms in our sample, the principals consistently held visions that directed decision making and action in an integrated way. Their administrative practice shaped facilitating conditions for positive instruction and clearly influenced instruction. In these schools, the ecologies of practice described at the beginning of the section were closely aligned, with the contexts nested within one another.

At one end of a wide continuum was principal Dave Marchard, principal at Hughes Elementary, who saw himself as a facilitator:

> So the biggest thing that I can do as a principal is hire good people who are going to be open to [collaboration] and willing to do that and then provide them the resources to make it happen, you know? Hire good people, give them what they need and then get out of the way. I think too many principals try to micromanage the heck out of things and you've got to hire good people and trust them to work it through. (Mr. Marchard, Hughes, interview)

At Hughes, Mr. Marchard led by setting up a context where teachers could do their best—he selected staff carefully and made sure that they had the resources they needed to do their work. As a result the staff built their own structures, with some teachers working collaboratively in grade level teams and others choosing different professional structures. Mr. Marchard was attempting to duplicate the smaller classes provided by SAGE by concentrating his Title 1 funds in grades 4 and 5.

In contrast, Patricia Murphy and her staff at Language Learning Academy were joined by their common interest of language teaching through immersion. In describing her school, Mrs. Murphy focused on their shared mission:

> I think [Language Learning Academy is] a very well hidden secret in Mallard. It's phenomenal in that we serve a really broad range of students from various ethnic and socioeconomic backgrounds. The parents—even their experience and backgrounds are varied. And we give these kids the opportunity to become bilingual. So everyday is fresh. It never gets boring; it's never redundant. We do sometimes get a little bit complacent and fall into maybe some not so great habits but for the most part it's always, as I said it's always new and fresh. And I think that having that common goal that every school has a mission and they have goals you know that they all try and build around. I think in a school like ours because of that world language piece it's so powerful that it maybe makes a tighter community. It's kind of hard to put in words but I think that that's a real rallying point. (Mrs. Murphy, LLA, interview)

Because the staff, students, and families had a common purpose, Language Learning Academy had a unique coherence. Language was always in the foreground, with classrooms sharing common curricular materials imported from abroad.

The strongest leader in our sample was Ben Masters who had pioneered an innovative staffing program that was known throughout the district. Valleyview is a complex school to lead with virtually every special program possible (Title I, ESL, cross categorical special education, a low incidence special education program, bilingual education) paired with high poverty and high student mobility. Categorical programs provided additional resources but were poorly organized. Recognizing that resources can only contribute to educational success if they are useable by all parties, Masters developed a collaborative teaming plan:

> We take two classrooms, pair them together. Give them a third teacher full-time and call them an instructional team. These were SAGE sized classrooms, so 15 [students], two teachers, a third teacher full time. So we basically have 10 to 1. And at the upper levels 50 to 3. And this teacher could be a special education teacher, could be an ESL teacher… could be a Title 1 teacher, could be a deaf and hard of hearing teacher…. You've got three teachers, all the kids, we don't care what the labels are of the kids, we don't care what the labels are of the teachers. The three of you have to collaborate to meet the needs of all the kids. And you are all equally responsible for all the kids. So that's so it emerged to be this collaboration/shared ownership model…. What it did was it flattened all of those special programs into these instructional teams…. The instructional teams are really where it's at. And we have 12 of them. (Mr. Masters, Valleyview, interview)

The physical space at Valleyview contributed to this design. The school had large classrooms, many of them linked by a door. This facilitated teacher and student movement between team classrooms, making sharing and collaboration much easier.

In discussions with Valleyview teachers, the design appeared to be having exactly the effect that Mr. Masters had in mind. The multi-grade teams with a specialist (K/1, 2/3, and 4/5 with two regular educators and one specialist) were using the design as an opportunity to increase the resources in the classroom:

> With the teaming structure, the idea really is that you've got 30 kids, you know two classrooms worth, but then you have three teachers that are all equally accountable for those kids. And then by team it does differ depending on how you divide up duties or see need. But it also offers a lot of opportunity to meet the needs of your kids. You know it's very different than just one teacher with 15 kids. Because then if you get tied down with something, or one kid or whatever that's what you're tied down with. By having three people you can really look at how you want to break up your day, both to deal with behavior stuff so the learning environment can continue, and then also to look at learning, you know not everybody has to be doing the same thing or expect independence out of kids that at kindergarten aren't very independent. You know that you have three people to deal with a wider range of learning. (Mimi Caster, Valleyview, focus group)

> More opportunity to work with smaller groups too or pull kids individually, do some interventions, where one person can lead and then the other two can work either in reading or math interventions or testing, assessments. That's a great time to do assessments I found. (Lorna Teller, Valleyview, focus group)

The plan had been extended when they had an increase in students and needed to add a section. At first this seemed to conflict with being a SAGE school – how could they keep classroom sizes within SAGE limits while maintaining the teaming that seemed so valuable?

> So that we could still remain true to the SAGE number but with our unique teaming structure here, the decision we had to make as a team was: Should there be everybody teaming in one single section with no other support? Or should we find a way to blend this section into our existing structure? And we felt that the teaming was such an important part of our building structure that it would be better to have a four person with three and hopefully not make that you know like a full three classes. That hopefully we could keep because we knew they were going to be high that we could keep them like a little bit less? (Ms. Lorton, Valleyview, interview)

Rather than create another team, they added a fourth teacher to the Bumblebee team (which had the largest classroom spaces) so that it had 40 students to 4 teachers. This balanced the collaborative intent of the staffing design, the rationale behind the SAGE program; it allowed teachers to have more flexibility while providing more opportunities for individual interventions.

> On the Bumblebee team there's four of us. So it has really impacted our groups. We can have four small groups of three, four, five, and we can do that for science. It also is an opportunity when we have an opening we take turns. Each day somebody else does the opening. The calendar. And then somebody like myself or whoever, I can just pull somebody and do some extra work at that point in time because it's, you know 15 or 20 minutes or so. So that you have that extra time to really work, concentrated work with one individual child. I have noticed a big difference in that. (Ms. Lorton, Valleyview, interview)

We will illustrate this design in instructional practice later in the report but it is worthwhile to note that Valleyview's achievement, across the years that the design had been in place, had improved markedly.

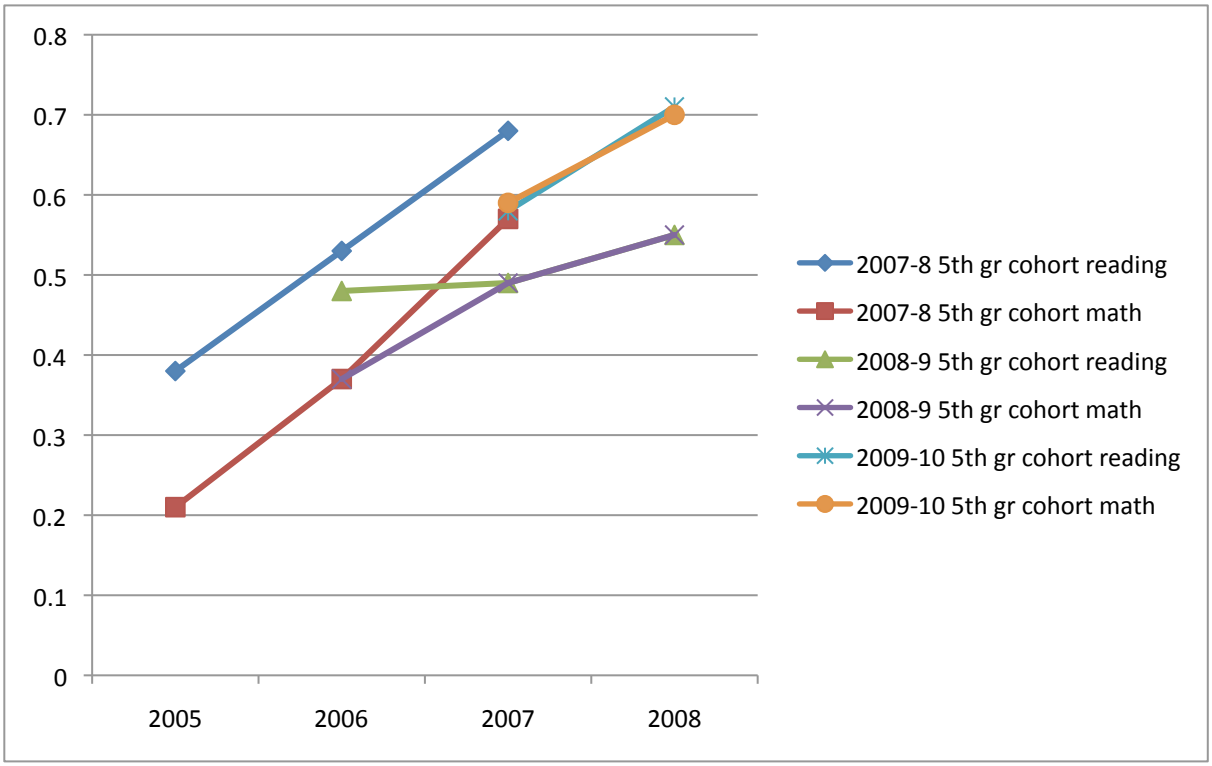

Figure 19. Percent of students performing at proficient/advanced on WKCE at Valleyview Elementary.

Continuity in Staffing

One of the risk factors to student achivement most frequently linked to living in poverty is mobility. It has been identified as an indicator of disengagement and ultimately a predictor of dropping out (Education Week, 2004). But in the day to day life of a classroom, it is a disruptive influence, one that makes difficult building a community or a coherent knowledge base for individual students.

As we spent time in SAGE schools, we were struck by another kind of mobility, but in this case the mobility was for staff. The more highly rated classroom had more stable staffing, with administration in place for longer periods and teams that were likely to have been partnering for multiple years or instructional designs that minimized the effects of disruption. For instance, the principal of the highest quality school, Hughes, had been in charge for three years and had served as learning coordinator at another school for four. Language Learning's principal had been a consistent presence for 9 years (2 as program implementor or assistant principal and 7 as principal) and Mr. Masters, in his third year at Valleyview, was an experienced administrator with a clear and innovative plan to take the school forward into the future. Of the top quartile of CLASS-rated SAGE classrooms, all were led by experienced teachers and all but two had worked in their current school communities for five or more years. The highest-rated team-taught classroom had teachers who had been partners for seven years and had developed an intriguing approach to a 30:2 classroom. We will highlight this classroom later in the report.

But even the most stable plans were disrupted by forces outside the control of teacher or principal. With small class sections in SAGE schools and the difficult nature of funding in the current economic context, it was often the case that administrators worked furiously to maintain ratios right at 15:1. Although in earlier SAGE days adminstrators had a kind of buffer that allowed them to have sections of 12 or 13, now they were pushed to hold the 15 student line very tightly. That meant that the science of predicting student attendance, something that had a certain amount of error in it, was often at odds with teaming and collaboration. This is how teachers at Valleyview described it:

> The adults have to be able to work together in order to get a project out for the kids. So even though we don't want the focus to be on adult interaction, that does have to be worked out in order to make sure the focus is on the kids. And during your first year of teaming you have to get to know someone's personality, strengths, where you can sort of predict what their reaction might be or how strongly you can push for or against something. Like any relationship it's all about getting your idea out and being able to compromise and work, and so it's all of those things that are interesting and the politics that plays into that. (Mrs. Teller, Valleyview, focus group)

> And so almost every year, once the school year has begun, we've either added or lost an allocation. So you can team and get ready over the summer. You can think you're going to be where you were last year and then all of a sudden what happens is, "Oh not as many kids showed up as what we expected or oh there's you know there's more." And adding a teacher or taking away a teacher, although financially you might have to do that in order to make the district budget work, it doesn't work for team consistency. And then you end up having people who have to switch grade levels or switch their teaming partners,

> switch schools, you know whatever it may be. And then you're starting over again with that teaming situation and so I think that's what's been hard is a lack of control we have over keeping the teaming situation the same. (Ms. Lorton, Valleyview, focus group)

This is not to say that staffing change does not bring some level of possibility for incorporating new ideas resulting in positive outcomes. What is notable are the ways in which schools were able to orchestrate the effects of teacher and administrative mobility. The problem of staff mobility was even more thorny in classes and schools with low-rated classroom quality.

In several of the lowest-rated schools we studied, substitutes and long-term substitute teachers took the place of more permanent employees. There were a wide variety of reasons cited for teachers leaving schools or shifting classrooms mid-year. Though not an exhaustive list, we encountered the following reasons, most often concentrated across the lower range of the sample: a teacher suspension, a teacher recruited into an administrative position, a teaming conflict, a classroom teacher shifting to a teacher leader position, maternity leave, and serious illness. There were numerous additional instances of teachers switching classrooms, grade levels, teaching partners and schools between academic calendar years. All of these changes added up to a whirl of transitions.

15:1 Long Term Substitute Teaching

Beverly Raze, Strong Foundation Academy

Content area	Grouping	# Students	Adults	Positive Climate	Negative Climate	Teacher Sensitivity	Regard for Stdt Perspectives	**Emotional Support**	Behavior Management	Productivity	Instructional Lrng Formats	**Classroom Organization**	Conceptual Development	Instructional Feedback	Language Modeling	**Instructional Support**
Literacy lang arts	Whole group	3, 7, 9, 10, 11, 12	1	3	4	3	3	**3.25**	2	2	3	**2.33**	1	2	1	**1.33**

We included substitute teachers in the study as their practice represents a realistic measure of what children experience in SAGE classrooms and schools. SAGE classrooms with long term substitutes were surprisingly common in our sample, with ongoing substitutes working in 4 of the 34 first grade classroomswe visited. Several other sample classrooms had had long term substitutes within the past year. Beverly Raze was a long term substitute who was very comfortable participating. Mrs. Raze was filling in for a teacher who was out on maternity leave. She had several years experience working with older students as a substitute at Strong Foundation Academy. This position was her first venture in first grade.

Mrs. Raze had certain pedagogical strengths developed in fourth and fifth grade teaching. She spoke of taking virtual field trips to Colonial Williamsburg and of how Smart Boards could potentially boost engagement at the school. She also valued asking higher level questions. Unfortunately, this made teaching the highly structured Strong Foundation Academy (SFA) curriculum a challenge. Mrs. Raze deviated from the SFA script during our observations (though not in this example), making up her own questions of an abstract nature and losing students' attention. She discussed her efforts to find age-appropriate behavioral incentives for students. And she was visibly uncomfortable using a prop that was the cornerstone of SFA instruction, a puppet named Bartie.

Perhaps due to the regrouping of students among classrooms for SFA literacy and her newness to first grade, this was a classroom out of sync. In fact, Mrs. Raze's classroom had the lowest CLASS rating in our sample. This snapshot of practice illustrates some of the challenges associated with mobility.

> Mrs. Raze returns her attention to the students who are still working on reading the word cards. "Look at it, don't look at me. Right. No, you skipped one, after 4." She taps a kid who is not looking forward on the head with a pencil and gestures toward the word cards. Then she comments that the new student is doing well for his first day at the school.
>
> Mrs. Raze takes out the Bartie puppet and puts it on her hand. "What does Bartie say?" she entreats, using the SFA manual on her lap as a guide. "Say the words, we're going to say them fast." "R-u-b," "r-a-n," "r-i-p." The kids repeat after Bartie and also critique Mrs. Raze for not having fingers in Bartie's mouth properly. She tries to remedy the situation by adjusting him but he is still off-kilter.
>
> A boy comes in bringing with him 2 women and a little girl maybe 2 or 3 years old. They guide the boy as he takes off and puts away his things. Mrs. Raze notices after a minute or two, looks up and says, "Hello, go to reading!" He runs off, his people leave, and she calls after him, "Walk Mishawn!" and then whispers to herself, "Is that Mishawn?" (Mrs. Raze, SFA, fieldnotes)

Mrs. Raze's new teaching colleague and mentor, veteran SFA teacher Doug Hertler, had taught upper elementary grades for many years and found his recent shift to first grade challenging but felt it was clearly an advantage to have a SAGE classroom. With fewer students, he explained, he could write more evaluative feedback on students' assignments. Though feedback is certainly a vital part of learning, written comments on student work is probably not the most effective mechanism for first graders, many of whom were struggling to learn to read. Both Mr. Hertler and Mrs. Raze needed support for learning about first grade practice but did not find it in an easily digestible form at SFA.

SFA principal Kendra Lawrence saw lagging math test scores as something she herself could remediate with some elbow grease and innovation. Technology was central in her vision of successful skill building. We describe her newest idea for improvement below.

> [IR pads are] kind of like a little buzz thing, like if you were on Jeopardy. And it… has all of the state standards in it….You buzz your answer…. …. And we're going to start with our third graders because it's really major…they are focusing on that for the fourth grade WKCE…. It's something that I'm going to teach because I don't want it in a classroom (laughs). And it would just be lost. Because the equipment is pretty expensive. (Mrs. Lawrence, SFA, interview)

While Mrs. Lawrence was wary of allowing teachers to teach with pricey equipment, she saw a distinct opportunity for improvement. The school had invested in a comprehensive curriculum, Strong Foundation Academy (although they had recently been handed the texts for a new mathematics series to take the place of SFA curriculum in that area), and the principal stressed the importance of teaching the curriculum *with fidelity*, or as intended by its authors. She linked this importance to her experience teaching without a standard curriculum, and to the need for assessment. She expected her teachers to appreciate the resource and use what they had been given. Mrs. Lawrence explained:

> And so I don't excuse anyone. Because one, you're a teacher. And that means for you to be a teacher you're teaching skills… if you don't know something you have to research it. If you don't know something you're telling children to get the dictionary out, research the word. I'm not telling you the meaning of the word, you get it. So the same thing with this program. Have the program, read through the program. If you have difficulties, then come back…. It says here, tell the students that as they read letters… they will analyze the same. So if it's telling you what to actually say…. If you don't have your own thoughts, they can give you some. So this is so detailed and I hate that more schools don't have [our curriculum]…. (Mrs. Lawrence, SFA, interview)

Teachers at SFA did have two 45-minute specials blocks each week. During one of those blocks, they reported that they engaged in required learning walks of other classrooms and critical analyses of observed practices. While this is an idea with many possibilities, given the need for improvement in instructional quality at this school, there was no interpretive framework for these observations, and teachers were observing practices that were not to be emulated.

SFA represented a model of fragmented SAGE implementation, with organization, supports and instruction quite disconnected. The staff often did someone else's job because they did not trust their peers to do the work established in their roles. Depicting her staff as students, Mrs. Lawrence took up the role of teacher and minimized the idea of being an instructional leader by expecting the highly-structured curriculum and the newest skill-building technlogy to drive student learning. Teachers engaged in professional development learning walks that allowed observation in their colleagues' classrooms that did not address the needs of their young students. Leadership, support, and instruction were not targeted toward commonly understood ends—everyone was clear that improvement was needed, but lacked the organization to move forward.

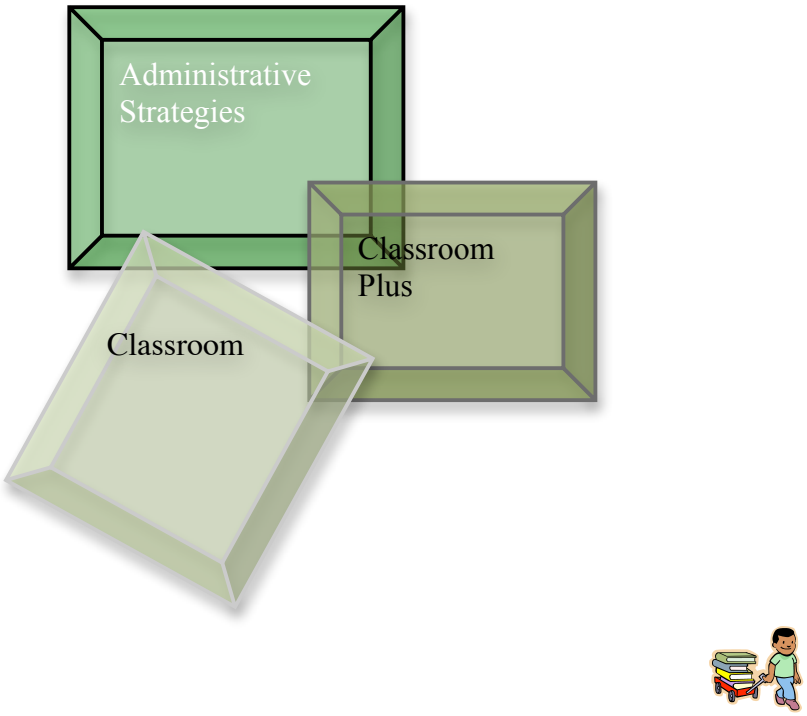

Figure 20. Fragmented SAGE implementation.

Fragmented SAGE implementation lacks coherence across contexts, with administrative strategies, school cultures, and classroom practice at odds. In fragmented implementation, educators have varying understandings of SAGE goals, resources, and strategies. Four sample schools, Community, Harvest, Poe, and SFA exhibited fragmented practice. We discuss them a bit later in this chapter. Some schools were just beginning to move from a more fragmented approach with the arrival of a new principal. In other cases, staff were unable to focus on the basic work of meeting student needs. In fragmented systems, administrators and teachers often stepped across boundaries, trying to fix problems in colleagues' contexts while failing to see the need to improve their own. Fragmented schools typically had the lowest classroom quality.

Supporting Collaboration

Increasingly, educators are becoming more aware that collaboration provides the diverse tools needed to address the complex conditions in school today. But collaboration is not something that happens out of good will or pure desire. It has to be mindfully scheduled into teachers' professional lives and doing that is a multi-dimensional puzzle that requires administrators to balance competing schedules and needs. Dave Marchard described it this way:

> It is only going to be achieved through some creative scheduling, so they have common planning time. And unfortunately, the special schedule in the elementary school runs the world (laughs). You know? And it shouldn't be that way. (Mr. Marchard, Hughes, interview)

The Maxwell district had recently promoted the idea of shared planning time and Mr. Marchard worked to incorporate it into the master schedule. Little things stymied the collaborative impulse however. While Hughes' first grade teachers had an hour of shared planning time most days of

the week, that hour was broken into two 30-minute segments. The teachers might take their students to music, pick them up 30 minutes later, and take them to phy ed. As a result, shared planning time shrank as teachers moved from one end of the building to the other three times, attending to lesson prep, phone calls, etc. These limits on shared time were reduced at Valleyview, where time for collaboration was scheduled more fully into the instructional day. The mixed roles of the Valleyview teams provided opportunities for interaction among teachers representing different skill sets.

Bringing something more to the table. The sample this year was a diverse one, representing schools and communities in challenging conditions. Many of the schools had supplementary programs that provided additional resources and teacher skills. One pattern that we found particularly interesting was that 6 of the 7 most highly rated classrooms in our sample were taught by teachers who had supplementary skill sets that complemented their elementary training. Two were bilingual Spanish teachers, one was both language immersion and early childhood education, one was early childhood trained, one was a deaf and hard of hearing teacher, and one had a background teaching students with learning disabilities. Was this just a fluke? Although we can't make a causal argument about the link between classroom quality and teacher training, we can suggest that having these supplementary skills provided *these* teachers additional tools to use in teaching. We highlight a particular staffing strategy that made this idea concrete at the team level and we highlight it in the next section.

Integrated teaching teams. Valleyview Elementary provided the most planful strategy for organizing an approach to best meet the educational needs of a broad range of learners. The teams constructed by Mr. Masters provided a multi-pronged approach to teaching and learning, with teachers representing diverse expertise on each team. We look at how that played out in the following example.

Integrated Teaching Teams

Brenda Lorton and colleagues, Valleyview

Content area	Grouping	# Students	Adults	Positive Climate	Negative Climate	Teacher Sensitivity	Regard for Stdt Perspectives	**Emotional Support**	Behavior Management	Productivity	Instructional Lrng Formats	**Classroom Organization**	Conceptual Development	Instructional Feedback	Language Modeling	**Instructional Support**
lit/lang arts	whole small, indivi dual	17, 38	2, 4	7	7	6	6	**6.5**	7	7	7	**7.0**	6	6	6	**6.0**

This is the view from the door when you first walk into Ms. Lorton's room

This is a closer view of Ms. Lorton's desk. She was not observed sitting there during our observations

Ms. Lorton is at a semi-circle table with 5 students. The rest of the students are at desks or tables reading and working quietly. Sara Martinez, an ESL teacher, is going around to individuals and helping those that need help.

Ms. Lorton says, "Jeepers all that fighting and all that dying is a bummer, it really brings you down, doesn't it? So what would you have done to get yourself happier?" She asks a student that was reading a book at her table.

Ms. Lorton turns to another student, "I got the best picture in my head when I saw that travel page. You're going to be gone for awhile. I wonder what you put inside that travel page. Where are you going?" The student answers, "San Diego." Ms. Lorton asks, "What are you going to do in San Diego?" The student answers her, but I am unable to hear him. Ms. Lorton says, "Alright, tell me what you're going to do to get ready for San Diego."

Ms. Lorton turns to another student, "How are you going to end that story?" The students have storybooks where on one page they write a story and draw a picture to go with the story. Some students are writing and some are drawing. She says, "Are you ready to publish? Can you put today's date up there?" She asks a student, "Did Sierra have any suggestions for you or did you get a chance to talk about it?" Ms. Lorton has students read each other's stories and gives them feedback. After a smooth work time, the teachers facilitate the shift to the next activity…

9:34 am

The door opens and more students come in. Some students are on the carpet and some are sitting at desks.

9:36 am
36-38 students and 4 teachers (Ms. Lorton, Mrs. Martinez, Ms. June, Ms. Kaster)[13]. Ms. Kaster sits at the back of the group and Ms. Lorton and Mrs. Martinez work to prep centers.

Ms. June claps a pattern to get the students' attention and the students clap back. They immediately get quiet and listen attentively. Ms. June says, "Boys and girls, I'd like to talk to you about centers. Are you ready? Are you ready? Are you ready to go?" (she asks the questions in a patterned cadence) The students reply in unison, "Yes I'm ready! Yes I'm ready! Yes I'm ready to go!"

Ms. June continues, "Your eyes should be looking at me 'cause we had a problem at the listening center, right Jared? We had a problem, so you need to really listen. Ms. Lorton gave you the directions after listening to 'Stone Soup.' You listen to Stone Soup. Number one, should you sit like this at the table (she drips off the chair) or like this at the table (she sits straight and looks at the book)?" The students start to answer and she says, "Show me with your hands." The students demonstrate and then Ms. June says, "Together. Together. Why do you need to sit next to each other?" A male student answers, "Because there is only one book."

Ms. June says, "Right! Because there is only one book! So be sure you sit next to each other. The good news is that the headphones do stretch that far. Ok, so number one. Everyone knows how to sit next to each other, correct? Second, we had some problems with the book. Jared, would you come on up here and tell the friends what you're supposed to do now?" Jared comes up to the front and stands next to Ms. June. She says, "Ok Jared, What do you do first?" He answers, "Write your name." Ms. June says, "Write your name. OK. Jared did that. Then what do you do?" Jared says, "Open the book." Ms. June says, "Then what do you do?" Jared answers, "Put in one stone." Ms. June repeats, "Put in one stone. Who's going to put in the stone? You are! So you write your name. So Jared writes…he wrote his name. So write your name. Jared put in one stone. And I don't see 10 stones. I only see one stone. Then what do you do Jared?" Jared says that we have to turn the page.

"Yes, we have to turn the page," Ms. June asks, "Now what do we do?" Jared talks about spelling words. Ms. June says, "Say--I don't know how to spell the words, Jared." Jared says, "The words are on the board." Ms. June repeats that, "The words are on the board with the picture. So you'll see one line for numbers, one line for words, and stamp. Ms. Lorton has a sample on the board. If you forget, look on the board. Some people forgot to do the back of the page. Uh-oh! Don't forget the back of this page. It's a page-turner. Just like in our journal."

She points to different areas on the pages, "Number, Word. Wait a minute, the last page looks different. What do we do on the last page? Do you get to write your name again? You get to

[13] The depth of professional expertise in this group was rich. It included Deaf & Hard of Hearing/elementary education, early childhood/education, English as a Second Language, and Title 1 reading.

write your name again! When you're done eating the soup, you can pick anything you'd like to do. What would you like to do? You pick Jared."

Jared says, "I will read a book." Ms. June repeats, "I will read a book. Is the book finished?" Most of the students say, "No." Ms. June says, "Put it back in the basket. All right, thank you Jared. Glad you are an expert. Are you ready?" The students say "Yes!" Ms. June says, "Ok, listen carefully to my directions."

There is a pause while Ms. June thinks. The students all sit quietly waiting. Ms. June says, "If you are an orange bumblebee[14] with Velcro shoes, go to your centers." The students look around and those that fit the criteria start to get up and move to centers. Ms. June repeats herself, "If you are an orange bumblebee with Velcro shoes…do you have Velcro shoes, Tiffany? You sure do!" There is some talk with the students about who is an orange bumblebee and who is a purple bumblebee. Ms. June says, "Ok. Ready? If you are a purple bumblebee, with white socks on, go and get your book box." The students start to talk about if they are a purple bumblebee and if they have white socks or not.

Ms. Lorton is working with one girl and one boy at the semi-circle table.

Ms. June continues, "If you are in Ms. L's reading group, stand up. Walk backwards." Some students say that they want to walk backwards. Ms. June says, "Good job Kiley. If you're in Ms. Kaster's reading group, you can walk sideways." Some students say that they want to walk sideways. Ms. June says, "Good job. Good job Leslie. If you are an orange bumblebee and you're not in a reading group, what would you go to?" The students transition. "Ms. Lorton's reading group can stand up." All of the students have transitioned into their centers and quickly engaged. (Mrs. Lorton, Valleyview, fieldnotes)

This example shows a team of four teachers managing the complex relations of a group of forty kindergartners and first graders. Within this group there are English Language Learners, children with special needs, and typically developing children. The teachers combine their expertise in planning and instruction, using two distinct instructional spaces across two classrooms to give children breathing room to learn. Their work required a kind of choregraphy, with planning who does what when, agreement across different professional specializations, and coordination across grade levels.

Across our five years of SAGE research we saw both strong and weak examples of this kind of collaborative work – we turn specifically to the challenge of teaming in the next section.

30:2 teaming. A very specific type of collaboration occurs in SAGE classrooms where two teachers are placed together. A frequent theme in our five year project has been the power and fragility of these teams. This configuration is most frequently chosen because of space issues. When the teams work well, they provide a "two heads are better than one" approach to instruction, allowing flexibility in grouping and teacher roles. We typically saw teams sharing space, students, planning, and responsibility for instruction. A less frequent configuration had a single classroom divided in half with bookshelves or cabinets and the teachers operated separately in very small instructional spaces. In this report we highlight a third option, one that was a hybrid of the two. Through the practice of Bea Kelley and Shauna Kravitz, the most highly rated 30:2 teaching team in our sample, we learned about finely honed collaboration that

[14] This instructional team is called the Bumblebees and the orange bumblebees are the first graders, the purple bumblebees are kindergartners.

capitalized on available space, creating strong relationships between teachers and children. The following are pairs ratings from a specific CLASS instructional activity observation cycle.

Doubled-up 15:1 Classroom

Shauna Kravitz & Bea Kelley, Edge Elementary

Content area	Grouping	# Students	Adults	Positive Climate	Negative Climate	Teacher Sensitivity	Regard for Stdt Perspectives	**Emotional Support**	Behavior Management	Productivity	Instructional Lrng Formats	**Classroom Organization**	Conceptual Development	Instructional Feedback	Language Modeling	**Instructional Support**
Literacy lang arts	sm, indiv centers	21, 22	2	7	7	7	5	**6.5**	7	7	6	**6.7**	6	6	6	**6**

This is a beautiful, well-stocked classroom space. There are four rectangular blue tables and two separate carpet areas with portable white boards that are used as teaching tools during our visit. The walls are covered with festive elementary school decorations—a huge word wall mounted on purple paper, a "Handy Helpers" job board, a green/yellow/red behavior card chart, a television, cubbies for each child with their supplies stacked inside, and an elaborate calendar bulletin board. Boxes of books for guided reading, a unique polished honey wooden bench, two huge carts overflowing with books, and four computers are neatly organized around the periphery of this full room. Blow-up planets and the sun hang from the classroom ceiling.

As we settle in to observe, each teacher has a group of students. Mrs. Kravitz is a white woman in her late 30's, a veteran teacher with a strong teaching voice and a lot of spunk. She is working with 12 students—she sits on a chair, using children's comments to create a Venn diagram about what bears eat. Mrs. Kelley, a gentle and soft-spoken white woman nearing retirement age is working with a guided reading group of four students at table at the opposite end of the room. At one of the tables, four students work independently on little books made of paper. They have already filled in the words in cloze passages to form their own stories and are now coloring covers. Of the 20 students, 15 are African-American, one is White, two are Asian, and two appear to be Latino. I am struck by the peaceful atmosphere.

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Mrs. Kelley hands out spiral notebooks to her guided reading group. “Put the date on top,” instructs Mrs. Kelley. “We’ll make 2 lists. . . pay attention, there are only three minutes left. . .” she foreshadows. The teacher has a mini pocket chart and word chunk cards. She has the kids say sounds, and then whole words, has them use the words in original written sentences in their notebooks, and then they write 2 lists of vocabulary words from the story by spelling pattern, ‘ie’ in one column vs. ‘y’ in another.

A few of the children have finished their ‘Helping Hands’ books and migrated over to the second carpet area near Mrs. Kelley. There are large, colorful astronomy books on the carpet—the kids are immediately engaged with these texts, studying the pictures, and conversing with friends about what they see.

Mrs. Kelley finishes her guided reading group and has students rotate again between the listening center, the ‘Little Hands’ book, and guided reading. This new guided reading group is pre-reading “Decodable Book 2.” [This is the same book and story as she used with the previous group, but the conversation flows a bit differently.] “Kids, can you find the name of the second story?” she asks. They pause and she gives them a clue. “It’s not numbered—which could it be—it’s *Apple Pie*.” The teacher uses a little whiteboard and writes *fried*. She gives a mini lesson on sounding out words the children might not know, words they will encounter in the story. Dawna, who was crying earlier (her head hurt), is in tears again and the teacher has her in reading group now. Mrs. Kelley gently teases Dawna into the lesson and keeps her talking and thinking…

The kids at the ‘Helping Hands’ table are a bit distracted, half working on their projects, some chatting, some looking off into dreamland. When I look at them, they notice and get right to work.

Mrs. Kravitz is, at this point, finishing guiding the students through their summary worksheet on the Little Bear story. The children are still sitting on the rug and following her modeling, adding to their own papers. "What is Little Bear thinking about?" No one responds and Mrs. Kravitz tries again, more strongly. "Stop writing on your papers and think now, Marsden. What are we thinking about?" Marsden looks down—it is unclear if he does not understand the question or does not have an immediate answer. "Do you know or do you want us to move on?" Mrs. Kravitz calls on another child who has her hand up. "He thinks about his new friend," suggests the child. "Anything else?" asks Mrs. Kravitz. "He thinks about his mother." "Why, Taylor?" pushes Mrs. Kravitz. "Maybe he thinks she thinks he's lost, right?" ventures Taylor. "Yes," agrees Mrs. Kravitz, "and he does, he thinks about getting home." Mrs. Kravitz adds Taylor's ideas to the chart.

Mrs. Kravitz points to what she has just written and guides the students to "Copy this—I've written it right here (on the large board)." Mrs. Kravitz then proceeds to hone the directions: "We're going to write in journals, on our own. For now, I want you to think about something—why you liked the story of Little Bear. Why did you like the story? Or why didn't you—use this paper for ideas. Let me give you a starting point." Mrs. Kravitz clips a blank piece of white paper to the board. "What, Marsden?" Mrs. Kravitz asks. He mumbles that he didn't like the story really. She continues her directions, then, incorporating his comment: "Say 'I liked this story' (Mrs. Kravitz writes this on the board) or 'I didn't like this story.' Only Marsden did not like the story but you could change your mind. Tell me in your own words." Mrs. Kravitz talks through an example, modeling what a child could potentially write, and then repeats the task directions again. Mrs. Kravitz allows one child, Taylor, to share her start. She says, then, that there is just a little time for recess, and that the class will just get a bit of a start. "You will need your paper, your pencil, your writing board [these are lap boards, made out of sturdy cardboard, that the students perch their papers on], and I'll give you each a journal." (Mrs. Kelley & Mrs. Kravitz, Edge, fieldnotes)

This example shows two teachers working together in synchrony, using every minute and inch in the classroom. The high quality environment in this classroom was made possible in an unusual use of SAGE resources. Mrs. Kravitz and Mrs. Kelley had been teaching together for seven years and had worked out a way to team in a single classroom, maintaining their individual autonomy as teachers, and building teacher-student relationships that capitalized on strong

knowledge of student needs. They had always kept "separate SAGE lists." This means that they each taught 15 students, maintained relationships with these students' families, and kept assessments and records separately. They merged the groups for daily opening, science, and math. For these subjects one teacher would plan and lead for the whole class of 30 and the other would support small groups and individuals. They consulted each other for ideas and materials, but felt free to design their own plans to meet their students' needs.

The room they shared was not divided down the middle, however. It was organized as a typical 15:1 classroom might be, with one listening station, just a couple multi-purpose tables, etc. The teachers coordinated *when* they taught various lessons so that the instructional configurations matched the areas of the room they used. For instance, while Mrs. Kelley was running learning centers and reading group at some multi-purpose tables and the listening center, Mrs. Kravitz worked with her students as a full group, making a conceptual web about bears of fact and fiction. This organization took time and organization to engineer initially, but this team had honed their practice to flow like a "well-oiled machine."

Mrs. Kravitz and Mrs. Kelley brought up some important points that countered ideas made in earlier reports about tag-team teaching. Tag team teaching occurs when one teacher takes all students while the other does clerical or other work. These teachers made the most of this division of duties in a way that increased productivity rather than decreased it:

> I know they'll say when the second teacher isn't teaching, they should be actively engaged with the children but I think that first hour we found that we *gained* time by doing it the way we're doing it even though when she's doing calendar, I'm not just sitting there watching them, I'm getting things done. (Mrs. Kravitz, Edge, interview)

> It eliminates a lot of busy work. You know, like the old board work—people just coming in and sitting doing board work while you do all the busy stuff too. Because it's like the kids right away from when they come in, we're doing stories with them or doing calendar, we're doing writing, we're doing math. They're actively engaged the minute they get here. (Mrs. Kelley, Edge, interview)

Other teams were less mindful in their practice.

30:2 "Shared" Space

Cora Sang & Loretta Bly, Edge Elementary

Content area	Grouping	# Students	Adults	Positive Climate	Negative Climate	Teacher Sensitivity	Regard for Stdt Perspectives	**Emotional Support**	Behavior Management	Productivity	Instructional Lrng Formats	**Classroom Organization**	Conceptual Development	Instructional Feedback	Language Modeling	**Instructional Support**
Literacy, lang arts	Whole group	19	2	4	7	3	3	4.25	4	4	3	3.67	2	2	1	1.67

The practice next door could not have been more different. Mrs. Sang and Mrs. Bly were a 30:2 team who shared a space *technically*—but there was no shared space in spirit. Mrs. Bly contended that she did not have a true teaching partner in Mrs. Sang, as Mrs. Sang did not share materials or ideas. Mrs. Sang reported that Mrs. Bly did not take good care of materials and that is why she would not share items with her. Mrs. Bly was a European American woman who took

up teaching after working in corporate America for several years. Mrs. Sang immigrated from a third world country and was keenly aware of issues of poverty at a personal level.

These women's personalities and perspectives were not reconciled in practice. Everything was separate in the classroom. There were two calendars and two 100's charts. There were even two word walls, side by side—if you were in Mrs. Sang's group, you looked at the chart on the left, and Mrs. Bly's group looked at the chart on the right.

Both sides of this classroom focused on rote skill development with little expected of students. Whole class teaching and potential conversations that never got going were additional commonalities. But there was evidence of lack of positive regard for others and little community feel in Mrs. Bly's practice while Mrs. Sang worked hard to maintain a peaceful atmosphere in the midst of persistent disturbances and a loud volume coming from the other side. Several students in Mrs. Bly's section were separated from the group in various ways, excluded from activities while they waited for "their" special educator to come.
Here is a glimpse into life in this classroom.

Mrs. Sang's half of the class is seated on the foam ABC puzzle that serves as a whimsical mock carpet. Seated on a chair next to a large whiteboard Mrs. Sang hands out work books and the kids open them. "We will read directions together first," says Mrs. Sang. "Write the letter that completes the spelling word," they read together aloud. [Ex. __ m ___, ca __ t. There is a word bank to help the students.] The students are given time to work individually but Court is picking at his shoe, then raising his hand. He says, "I'm done," after about one minute. Another little guy seems stuck. He is playing

"This is called listening time. I will wait," states Mrs. Bly firmly. "I'll give you a puzzle. It's order words. Ms. Ladson did this with you last week. If we're putting things in order, how do we put them?" Mrs. Bly calls on Simpson but he does not answer. She then calls on a different boy. He says, "First." Mrs. Bly writes 'first' on the white board and comments, "He had *his* thinking cap on." Simpson starts yelling, "Shoo, shoo!! I don't like this! He puts his feet up on his desk and starts kicking. "OK, Simpson. . ." says Mrs. Bly. She keeps going with the lesson, saying, "We're going to do, we're using order words, what else?" "Next," suggests a student. Mrs. Bly writes 'next' on the white board. Simpson is dancing, throwing his folder, spinning around. He then brings some papers to the teacher—she says, "It's ok—put that on my desk, honey." [Her tone is sharp and her response mismatched to Simpson's behavior.]

Continuing on, Mrs. Bly asks, "Jackson Martin, what else do I need?" "Last," he offers. She writes 'last' on the board, and models changing the first word of a sentence, now beginning it with a capital letter.

"I'll give you writing paper," explains Mrs. Bly to the class. "Me too?" Simpson inquires. Mrs. Bly ignores him and then he is

with his pencil. A girl says, "I'm done." Mrs. Sang's attention is on a boy at the front of the group. She cues him saying, "Keep going, don't keep stopping and doing other things. Others are waiting for you."

"Let's go over this work on page 38. What's the first one?" "Teacher, I'm done," announces the student that Mrs. Sang had just nudged along. "I know you're done. I was watching you," Mrs. Sang says warmly. "What's number 1, Karson? What's number 2? Come on Kit, I'm watching you. . ." Mrs. Sang calls out problem numbers and most of the kids chant the answers back together. "Teacher, I need a little help!" calls one girl. And Mrs. Sang points to the correct number to cue her.

crying, with his head down, banging his fists on the desk. He then lies on his desk.

Mrs. Bly keeps going with the lesson. "I'll give you puzzle pieces facing down. You don't have to share," she tells the students as she begins passing out the pieces. To the two kids who have been talking at their desks the entire time of the observation, approximately 30 minutes, she says, "You don't have to do it, *your* teacher [the special educator who does some pull-out instruction with these students] will be here in a little bit."

As they wait for Mrs. Bly to give them the puzzle pieces, there is a conversation between Jackson and Trenton about screensavers on the nearby computers. "My daddy has this," brags Trenton.

"I have a prize for Lonette. She makes good choices. See me before lunch," says Mrs. Bly to Lonette. This gets another girl jealous. "*I* make good choices!" she yells. George is pouting at his desk. "George, please flip your card," says Mrs. Bly. I do not think he does and Mrs. Bly does not follow through on monitoring.

Some of you will share puzzle pieces, some not. I will decide. Do not turn them over yet." [This is interesting, as Mrs. Bly had stated a few minutes ago that the students would not need to share, and insinuated that sharing was not a happy thing.] "Kendrick is waiting patiently. Raise your hand if you did not get one." The kids are all fairly quiet and attentive at this point. It has taken several minutes, but all of the students now have their materials. "Now you may turn your pieces over. Put them in order of how they make sense. Think what happened first, next, last." The children flip their pieces. In about 2 seconds, kids start yelling, "Done, done!!"

(Mrs. Bly & Mrs. Sang, Edge, fieldnotes)

Edge Elementary had time available for potential collaboration among teams: music, art, gym, computers were offered weekly, a rarity in Mallard District. But loose organizational ties and hard feelings within the first grade team put a damper on possibilities for sharing expertise among team members. The principal, William Haverford, noted that there was grade level time afterschool, but this was merely 45 minutes per month. This is unfortunate, because if the significant skills and talents of the various teachers could be shared, many would potentially benefit.

Mr. Haverford took a soft touch as an administrator. As he described his method of working with teachers:

> I … give tips to the teacher…. So you know I try to get them to be as successful as they can and I let them know the mistakes I've made and how I hate to see them make the exact same ones. But also ask them too because just because I say it doesn't mean I'm right or wrong. I'm just going to give you another set of eyes…. So they can be prepared and just have all the tools at hand to do well. (Mr. Haverford, Edge, interview)

With Mr. Haverford serving as an observer, there was little to catalyze a leadership function that ensured that the "classroom plus"—the relationships and organization needed to support all students—were consistently met. This left instructional and organizational gaps in the first grade teams. Teachers were left to define SAGE practice at the classroom level. The environment in the Kelly-Kravitz classroom provided students with a high quality education. The quality of practice in the Bly-Sang classroom resulted in students receiving far less than they needed. SAGE at Edge Elementary school lacked consistent synergy between organization and instruction.

In contrast, Hughes' version of SAGE was built on a foundation of staff autonomy, with a principal who was a facilitator of what he saw as strong professionals. The first grade staff was a group of talented teachers who valued the freedom they had to teach their strength but at the same time yearned for more opportunity to learn from each other. The culture at Hughes was stuck between the coherence of their individuality and the isolation they felt by not having administrative strategies that worked to promote interaction.

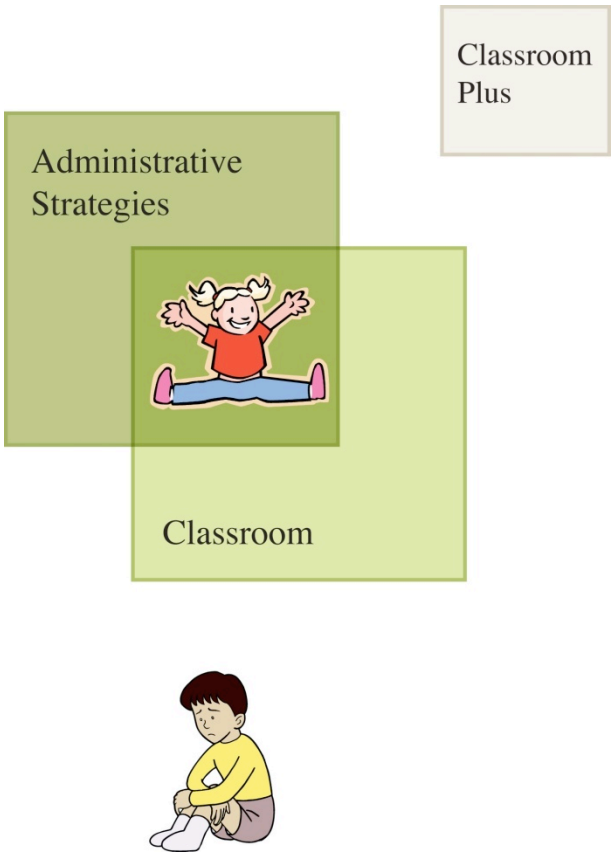

Figure 21. Classroom-defined SAGE implementation.

In school cultures focused on present needs or in schools just initiating visions for growth, individual teachers and staff are mainly left to draw upon their experience and knowledge to make SAGE work in classrooms. Classroom-defined teachers did not collectively articulate a coherent SAGE vision, nor did administration provide one. In other words, 'Classroom Plus' was not a stable context supporting SAGE practice in Classroom-Defined SAGE schools. As teachers vary in knowledge and skills, and settings have different local histories and different resources, it makes sense that quality would be highly variable in these settings. That is what we found.

Though we have highlighted examples from our highest and lowest quality sampled classrooms to illustrate patterns of implementation, these patterns were observed across the 12 schools and 2 districts sampled. For the purposes of this report, we cannot elaborate each of the classrooms studied in depth. However, we wish to provide the reader with an understanding of the various contexts represented in the study. To do this, we present descriptions of SAGE in each of the 12 sample schools. Following the types of SAGE implementation observed in fieldwork, summaries of schools are organized by Fragmented, Classroom Defined, and School Integrated implementation (see Appendix E)

The Heart of Quality SAGE Practice

Within these SAGE schools, quality instruction was created in classrooms where the teachers taught to *particular* children with *particular* needs – they learned about those needs through ongoing interactions, through observation and conversation. In these cases the

instruction met the children rather than the other way around. It was tailored and in no way teacher proof, requiring minute-by-minute professional decisionmaking. As one highly-rated teacher working within a School Integrated SAGE model explained it:

> I think it's a challenge. Just because you have so many varied needs within your one classroom. I mean you really have to differentiate so you're always thinking about how you're going to address the next kid's needs. Because you can't even do the same thing from one year to the next. Because the composition and makeup of the classroom is always different. What worked one year for one class isn't going to work the next year. You have to adapt it or differentiate it or change it for some reason or another. . . . And you know behaviorially or educationally or even their emotional needs, that's always changing. Always different. So you're always thinking. Which is hard. I go home tired at night but at the same time, I think the learning needs are appreciated more. You know if you're actually getting at what kids need to know. (Ms. Lorton, Valleyview, interview)

School-integrated SAGE models provided a balanced base of supports linked to student school experiences. Looking at the relationship between SAGE implementation and measures of student achievement, School Integrated SAGE models had the highest levels of performance on WKCE 4th grade math and reading (see Table 8 below). Classroom Defined schools had mid-level test performance, and Fragmented schools had the lowest levels of performance. Recognizing that we have not used a research design that allows us to assert cause, these patterns are promising signals of the types of systems where positive outcomes for children in poverty exist.

Over the past five years of looking at SAGE implementation, we have viewed program quality as related to the organizational structures that affect classroom ecologies. In intial analyses we suggested a typology based on a linear perspective on practice. For example, implementation of the class size reduction element was most fully engaged in 15:1 configurations, partially engaged in 30:2 team teaching, and inappropriately engaged in 30:2 tag team teaching (see 2006-7 yearly report). The work in 2007-8, which had the benefit of 3 years of SAGE experience, provided a more nuanced reading of implementation. Rather than focusing purely on classroom-level decisionmaking and practice, a revised typology defines SAGE more systemically, looking at how classrooms are located in systems of education that provide support at the classroom and building level. We now see SAGE as a range of systems exhibiting various levels of coherence. SAGE schools and teachers in this study are at different places. Their systems of implementation coexist with patterns of classroom quality and outcomes. A few schools in this sample are well-organized and integrated. Several more show signs of moving— we believe wisely— in that direction.

Table 8.

Revised SAGE Implementation Typology

Implementation[15]	Fragmented	Classroom Defined	School Integrated
Schools	Community*, Harvest*, Poe, SFA	Davis, Dickinson*, Edge, Hughes*, Pryor	LLA, Valleyview, Woodhouse
Base: ***Administrative strategies***	Instructional leadership focused on curriculum and/or resource allocation rather than student needs. Instruction taken on by the administrator. Space and resource allocation out of sync with classroom and student needs.	Individual teachers, not administrators, hold most responsibility for SAGE classrooms. Teachers lead, administrator supports teachers and/or attends to other school-level priorities.	SAGE integrated as part of school improvement vision; continuous, embedded, aligned development; scheduled teacher planning alone & with colleagues; active, including PD on working with smaller groups and related to teaming.
Mediating relationships between staff and between staff and resources: ***Classroom Plus***	Fragmented, one shot, externally presented PD presentations. Students switch classes and are regrouped often. High staff mobility. Little collaboration between home and school. Families not seen as partners in education.	PD minimally connected to other instructional efforts, teachers not involved in planning. Classroom culture is the priority; school concerns are in the background. Individual teachers work to form relationships with families.	PD responsive to classroom, student and community needs; on-site specialists promote learning and problem solving; teachers involved in organization. Teachers share knowledge across specializations and content areas. Relationships are nurtured within classrooms. Collaboration and trust built over time. School activities developed before and after school in response to community need. Community resources offered through the school to all community members.
Quality within SAGE classroom configurations: ***Classroom***	Fragmented, unplanned, assessment not used to inform instruction, unaligned, unconnected to experiences of students/families, low expectations. Low moderate to moderate CLASS emotional and organizational support. Low instructional support.	Instruction is variable, dependent on efforts of individual teachers. Moderate to high CLASS levels of emotional and organizational support. Low to high moderate instructional support. High variation in CLASS scores within this group.	Curriculum aligned with local standards, relevant assessments and reporting formats, teacher professional development, responsive to student needs and experiences. Best practice in content is explicitly related to best practice with small groups. Moderate to high CLASS levels of emotional and organizational support. Moderate instructional support.
Typical student achievement for this sample: ***Child Outcomes***[16]	56%	62%	71%

[15] These categories should be seen as ideal types. The schools might straddle categories in some cases.
[16] % Prof & Adv WKCE 4th grade – average of Math and Reading scores for 2008.

Change does not happen magically. Language Learning Academy, Valleyview and Woodhouse –School Integrated models— put classroom, school community, and administrative strategies together. These pieces were joined through countless hours of targeted work. Language Learning Academy's intensive professional development and curriculum work stemming from a passion for language immersion, Valleyview's hybrid organization centered on students' needs, and Woodhouse's efforts to bridge bilingual and monolingual teaching teams and engage with parents and the local community were strategies that made possible high levels of quality instruction for students. Several other schools were also intent on improving SAGE practice. Community and Dickinson's administrators were working toward initiating student-focused models of practice, through unifying supportive structures such as integrated PD or principal-led instructional focus centered on student achievement. Hughes' staff was working on constructing a collaborative model facilitated by their principal. While 7 of the 12 schools were intent on activating organizational change, the remaining 5 schools' arrangements largely concentrated attention away from unifying school-level SAGE organization.

Limitations

This study of 12 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 tests. 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 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 (1995) 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.[17] Using multiple sources of data ranging from reports from all SAGE schools, surveys of teachers in the twelve-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 12 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.

[17] 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

This report represents not only analysis of data from the 2007-8 fieldwork, but the accumulated experience of five years of study on class size reduction made possible by the partnership of researchers from WCER and DPI. We have had the opportunity to examine carefully the literature on class size reduction, talk with researchers about the state of the field, and design studies that linked a focus on the specific structures of the SAGE program with the current state of the knowledgebase on class size. As a result, we were able to work with a number of dedicated educators in diverse settings who shared their knowledge, expertise and schools so that we could study their practice. In the process of this work we have been made aware that there are no simple answers to the question of *How does SAGE work*?

This year's study, which provided access to 12 new schools, reinforced the theme of complexity. We could see, again, that there are multiple ways to do SAGE well. In a new twist, we found that rather than the frequently suggested forced choice of small class vs. a good teacher, another element entered the equation. In carefully studying the practices in this year's sample, we found that we could categorize SAGE implementation contexts at the *school* level. Examining implementation through a three level typology, we were able to better understand how SAGE implementation is a matter of synergy, synergy involving the a) administrative resources and strategies, b) extra-classroom relationships and resources that shape the instructional interactions, and c) resources and practices in the classroom. These three elements helped us understand why it has been difficult to explain how SAGE works through simple linear relationships between inputs (e.g., the type of class size reduction configuration chosen, the number of children in a classroom) and student outcomes. By working to understand how the three ecologies of administration, classroom plus, and the classroom work, we can better understand the fourth ecology, student learning. The alignment of the first three ecologies helps to explain the fourth. Practice in the 12 schools can be viewed as three general patterns: school integrated, fragmented, and classroom defined implementation. We summarize the three models below.

- *School integrated ecologies of SAGE implementation*

  In the most integrated form of this model, a school has in place administrative practices that optimize the resources available with SAGE through clear leadership that includes staff in decision-making. Classroom practice is enabled by allocation of resources aligned to support student needs, bringing together professionals with diverse expertise to differentiate instruction. Practice had a seamless quality as staff worked together with a shared mission. This approach to SAGE implementation tended to have uniformly higher CLASS ratings of classroom quality and higher measures of student achievement.

- *Fragmented SAGE implementation*

  Lacking coherence across contexts, fragmented SAGE implementations had school subgroups and practices working independently and often out of sync. In these settings, little united individual practices. There was often conflict over the roles and responsibilities necessary to meet student needs. Gaps in services and poor resource utilization characterized these schools and therefore teachers and students did not have the requisite tools to support learning. Schools that had fragmented SAGE

implementation had classrooms that were likely to be rated in the low to low-moderate level and had lower student achievement.

- *Classroom-defined SAGE implementation*

  In schools with SAGE focused on the classroom, there was the most variability – in classroom quality, in student achievement, in staff philosophy. In these schools, individual teachers developed strategies to make the most of SAGE. As a result, skilled teachers who had a strong sense of their practice clearly engaged their students. They were given a fair amount of autonomy in their schools and were free to craft a context that exploited their strengths. The corollary to this was that staff members who came to SAGE without a strong set of professional resources were left on their own to figure SAGE out. In contrast to the integrated model, this model lacked the capacity building that systematically provided support among staff. As a result the experiences within these schools were quite variable.

When school culture and administrative strategies are added to the SAGE mix, it becomes clear that, as Blatchford says, "It is not just down to the teacher." SAGE was designed to change the interactions possible within individual classrooms through class size reduction. However, the interactions possible are shaped by a number of other forces as well. It helped us understand why 15:1 SAGE configurations were not *necessarily* superior to 30:2 configurations. When the team-taught classrooms are taught by strong partners, they can generate a rich source of support for their students. It also provides a partial explanation for why two 30:2 classrooms in the same school can be vastly different in quality. High quality instruction can come in many forms. But it never comes by chance.

Recommendations

There are so many examples of exemplary SAGE practice. And they exist in schools across the state, serving children who bring to school a variety of needs. These exemplars did not come out of one mold – they reflected the distinct local culture and the particular professional personality of an individual or pair of teachers. The teachers and principals we spoke with saw SAGE as an incredible resource that made a difficult job possible to do. But the degree to which SAGE could leverage good practice depended much on the local resources available to activate it. Using a chemical metaphor, SAGE is one component of the educational reaction. But in many cases it is most powerful if it has a catalyst, something that enables it use.

What are reasonable catalysts for SAGE? At the most basic level, providing information on SAGE's intent would give a sense of what the law was meant to achieve and how. It would also be helpful to provide information about high quality practice, with a focus on the variability that has been reflected in our studies so that schools have multiple images of quality toward which they can work. This is more complex than the first generation SAGE evaluations that identified elements of individual teacher practice that were related to student achievement. But it provides multiple leverage points for change – SAGE can be effective from the classroom up and from administration down. And as we found in discussions with teachers, it is not enough to send out information and assume that teaching will change. Supported learning that uses examples of SAGE quality that promotes discussion among teachers should generate momentum for thinking about new ways of teaching and using staff, space, and schedules.

The State of Wisconsin has made a considerable and ongoing investment in Wisconsin schools and students through the SAGE program. We have seen that investment pay off in many sites. Sharing the many ways that schools and teachers can use SAGE resources to enrich students' experiences would be an important complement to the funding provided for implementation.

Implications for Future Research

We are convinced that a one dimensional approach to research is too simple to evaluate the state's investment in SAGE. It is a complex reform that is implemented in many ways. Asking "Does SAGE work?" might be more fruitfully framed as "How does SAGE work?" Future research should be designed to capture that complexity. That will require multiple methods that explore both the breadth and depth of practice in conjunction with studies of student outcomes.

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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 Pianta, LaParo, & Hamre (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.[18]

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

[18] 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 9.

Table 9

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.

The CLASS manual (Pianta et al., 2008) provides a variety of evidence of its reliability and validity. Confirmatory factor analyses explored the internal consistency of the three main domains measured by CLASS. Reported separately for five large studies, alphas were in the moderate to high range (.76-.95) across 3 domains. Reliability was assessed across cycles, with ratings in the moderate to high range (r = .68 -.97) comparing first cycle to the total score. With 2 cycles, correlations with the final score rise to above .90. Measures of stability indicate that CLASS scores are highly stable across days, with correlations ranging from .73 to .85. Instructional Support ratings predict to child language, pre-reading concepts, and applied math skills, while Emotional Support ratings were associated with language skills and teacher-reported behavior problems (Pianta et al., 2008).

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: 2007-8 CASE STUDY 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.

APPENDIX D: 2007-8 TEACHER SURVEY

SAGE Evaluation Study: Teacher Survey 2008

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 of 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 WCER.

Your school will receive a $5 donation for your participation.

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

Thanks so much for your help with this important project!

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

Comments on your current use of SAGE (including space, teaming, schedules, etc):

IF YOU TEAM TEACH WITH ANOTHER SAGE TEACHER, PLEASE GO ON TO QUESTION 5 BELOW. OTHERWISE SKIP TO QUESTION 8 ON PAGE 4.

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 up 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?

___100% of the time ___75% of the time ___50% of the time ___25% of the time

Does this represent:

__ Never
__ About once or twice per school year
__ About once or twice per semester
__ About once or twice per month
__ About once per week
__ 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?

___100% of the time ___75% of the time ___50% of the time ___25% of the time

Does this represent:

__ Never
__ About once per school year
__ About once per semester
__ About once per month
__ About once per week
__ More than once per week

Section III: Curriculum

8. In a typical day, how much time do the children spend in the following activities? PLEASE 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

Section IV: Family & Community

9. How frequently do you engage in the following for all students in your class (please focus on classroom practice rather than individual instances)**:**	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 (e.g., family literacy nights, classroom potlucks)	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

10. 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 less	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 More
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	1	2	3	4	5	6	1	2	3

11. At some point during the last 3 years, did you:		
	No	Yes
a. prepare a professional development plan?		
b. explicitly link professional development activities to improving student achievement in your plan?		
c. evaluate your success in meeting the goals of your plan?		

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

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

14. 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 Strong Foundation Academy or Direct Instruction	☐	☐	☐	☐	☐

15. How useful would you find additional professional development on each the following topics?	Not Useful	Somewhat Useful	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

Comments on SAGE professional development you would like to share:

APPENDIX E: PORTRAITS OF QUALITY IN 12 SAGE SCHOOLS[19]

[19] These snapshots are syntheses of information obtained in interviews, focus groups, school observations and WINNS. They are provided as an overview of the full range of SAGE practices sampled and are categorized into implementation types based on broad patterns discussed in depth in the Results section of this report.

TYPE I: FRAGMENTED SAGE IMPLEMENTATION

#1: Community

#2: Harvest

#3: Poe

#4: Strong Foundation Academy (SFA)

- Low levels of SAGE synergy: Administrative vision and resource distribution, school models of collaboration, and classroom practice are poorly aligned and sometimes deficient
- Lowest levels of classroom emotional, organizational and instructional support for learning
- Lowest value added student outcomes

FRAGMENTED SAGE IMPLEMENTATION #1:
COMMUNITY ELEMENTARY SCHOOL, MALLARD DISTRICT

School demographics/community context: Community Elementary is a large single-story building—one of the newer facilities we visited. It was the lowest-performing school in the sample. The students were largely African American or other minority (93%) and qualified for free or reduced lunch (88%). A large percentage (21%) of students at the school were labeled as having disabilities. The school had 431 students in PK-8th grades. The first grade team consisted of two female teachers—one White and one African American. We were unable to observe the third, male teacher's, classroom as he was out for an indefinite absence and we felt it unfair to observe a substitute teacher brand new to the classroom. One teacher was supervising a White male student teacher during our visit.

What makes this school unique: Behavioral issues were very apparent at this school—in both school hallways and the classrooms observed. School personnel in security uniforms were called to handle problems on occasion.

SAGE configurations in first grade: 15:1

Administrative context: Claudia Jones, an African American woman, was beginning her second year as principal. She did not have an Assistant Principal and spoke of the challenges of her job given 10-12 behavioral referrals a day and supervising recess, the cafeteria, completing support best practices. The building had literacy and math specialists and the principal was intent on organizing for better teaching and learning. Mrs. Jones supported staff members' concerns for student wellbeing and thought that teachers sometimes needed to take on pseudo-parental roles to meet students' needs. Mrs. Jones knew that it was crucial to articulate what the SAGE "achievement guarantee" means in real terms. There was concern among staff that continuous student progress was a more reasonable accountability goal than grade-level proficiency for many students who came in far behind.

Curriculum context: This is a Reading First school. In Direct Instruction (DI) literacy, chosen for Reading First instruction at this school, students are tested frequently and grouped and regrouped across grade levels by reading level. The math program is text-based, one of three district-approved choices. Second Step, a social skills curriculum taught in the primary grades in several Mallard schools, was new to Community. In Second Step teachers lead students in discussions of large photographs of social situations. The school's curriculum committee made decisions about program adoptions and best practices. In our focus group, teachers talked about student mobility, a lack of consistent curricula across district schools and the impossibility of "catching up" to standards of proficiency when students came to them with low skill levels.

CLASS: School CLASS quality=3.57, 11th out of 12 schools in our sample
Emotional Support=4.23, Classroom Organization=3.70, Instructional Support=2.57

Professional development: The Reading First grant required teacher professional development. They spoke highly of this ongoing support. There were curriculum specialists in the schools who modeled instruction and conferred with individual teachers. The principal modeled instruction in classrooms as well. Additionally, one of the first grade teachers took part in many workshops offered by the district. The other teacher read independently about strategies for best practices.

SAGE at this school: At Community, SAGE was fragmented in a variety of ways. While the principal understood the importance of the staff defining what SAGE means, the conversation with staff had not begun. Mrs. Jones was pulled in many directions and the leadership team worked toward a vision for best practices incorporating Reading First. Teachers saw themselves as parental figures for needy children, providing extended interventions for a few the rest of the class languished due to low levels of classroom organization.

FRAGMENTED SAGE IMPLEMENTATION #2:
HARVEST ELEMENTARY, MALLARD DISTRICT

School demographics/community context: Harvest Elementary School serves 378 PK-5th grade students, about half from the neighborhood. A number of the Harvest students have parents who attended the school as children. The school building is older and heating issues were apparent the day we visited. It was freezing in one of the first grade classrooms, though teachers explained that the temperature was an improvement over the day before when they had on coats and gloves. The student body is 94% minority (predominantly African American) and 93% of students receive free or reduced price lunches. 23% of students qualify for Special Education services. The first grade teaching staff consists of a White male and two White females. All are veteran teachers at Harvest.

What makes this school unique: This is a Reading First school. The level of curricular structure provided for teachers was notable, as was the mixed 30:2/15:1 configuration implementation within grade levels.

SAGE configurations in first grade: 30:2 team taught and 15:1

Administrative context: Community principal Marion Salazar is Latina. She is in her fifth school as an administrator in Mallard School District. In her second year as Harvest principal, she is establishing herself as school leader. A literacy specialist and district personnel connected to Reading First and Direct Instruction support the staff in their teaching. Instructional leadership comes from these leaders rather than the administrator.

Curriculum context: The teachers are quite committed to Direct Instruction (DI), teaching not only reading but DI language programs as well. There is some regrouping across classrooms and grade levels for DI. The program is supplemented with Accelerated Reader (AR) computer-assisted individualized reading. In-services have provided ideas for supporting struggling students and incorporating more teaching of vocabulary into the DI program. Houghton Mifflin mathematics instruction is also now carefully paced with a new system called Math Gains. Monthly activities for parents, like taking an AR test with their child or learning how to help with math at home are typical school-home outreach. However, first grade staff were dissatisfied with their connections with families. They cited low levels of parent involvement.

CLASS: School CLASS quality=3.78, 10th out of 12 schools in our sample
Emotional Support=4.75, Classroom Organization=4.04, Instructional Support=2.54

Professional development: Individual teachers can request in-classroom sessions by district specialists modeling literacy strategies Teachers thought the PD provided through Reading First was very helpful and practical for their teaching. The district implemented six 2-hour collaborative planning sessions this school year for sharing among grade levels. There was no SAGE professional development.

SAGE at this school: SAGE resources were disconnected from other instructional pieces at Harvest. The structured curriculum drove classroom practice as staff worked to make up what they viewed as a range of student deficits. Harvest had one section of 30:2 at kindergarten, first and third grades with one or more 15:1 sections per grade level. The teachers discussed the pros and cons of each configuration and noted that they were a collaborative group as a grade level. While they understood collaboration to be part of the SAGE model as it incorporated team teaching, participants were unclear on overall SAGE aims and goals. They wanted a better understanding of the goals of the program.

FRAGMENTED SAGE IMPLEMENTATION #3:
POE ELEMENTARY SCHOOL, MALLARD DISTRICT

School demographics/community context: Poe—a school of 383 students with rare green space and significant neighborhood involvement— is the most privileged school in the sample, with the lowest level of poverty (49%) and the largest number of White students (65%). Twenty one percent of the students receive special education services. Many children of teachers and of city workers from the neighborhood attend; the principal describes the school as working class. The first grade teachers were White women who were experienced teachers with work at varied levels over the courses of their careers. One of the teachers had moved into the district in 2006-7.

What makes this school unique: Poe is both very small and very crowded. 6th, 7th, and 8th grades had been added recently and the enrollment was creeping up through transfers as well. The school was fortunate to be situated on a significant plot of green space—rare in this urban district. This made it possible for the school to provide a range of sports, health and wellness activities for students. Teachers added that they were one of the few schools that had not lost their gym teacher—he was instrumental in coordinating extracurricular activities. The school was also working with a local landscape architect to design a greenhouse and garden.

SAGE configurations in first grade: 30:2 team teaching

Administrative context: The principal was Latino, a veteran administrator with a long teaching resume. He saw school organization and teacher collaboration as important strategies for a successful school. He described Poe's middle school team as exemplary and hoped the other grade levels could be shaped to their level of cohesiveness. The first grade team suggested that teacher beliefs needed to be taken into account in the team teaching partner assignment process. The teachers were worried about being shifted involuntarily between grade levels; it had happened in the past and as they were anticipating for the upcoming school year.

Curriculum context: The school used a layered literacy program, including Direct Instruction (DI), Houghton Mifflin texts and writer's workshop. They felt that DI was needed for its consistency across grade levels and its efficacy in promoting low-performing students' achievement. The other forms of instruction allowed more space for teacher and student creativity. The teachers enjoyed learning centers and indicated that they would like to incorporate more of them but that space constraints made this nearly impossible.

CLASS: School CLASS quality=4.04, 9th out of 12 schools in our sample
Emotional Support=5.0, Classroom Organization=4.6, Instructional Support=2.53

Professional development: The principal felt that SAGE goals were integrated into the general Professional Development of the school. A district representative had come out the previous spring to talk about team teaching and distribute team teaching guides but the school had not addressed the material specifically.

SAGE at this school: Administrative distribution of resources, space and team configurations contributed to fragmented SAGE implementation. The principal viewed SAGE through the lens of fairness and because there was not enough space for all 15:1's, all SAGE classrooms were taught by 30:2 teams. This strategy was used even though some classrooms had more than 30 students and there was an empty classroom available. The extra room was used as a "multipurpose" room for classes for pull out activities. While teachers pulled DI groups and basal reading groups throughout the morning, students were expected to work independently on seatwork for extended periods until their groups were called to meet. Teachers felt that the teaming situation and cramped space hindered instruction and that the situation was particularly problematic for students who had trouble concentrating.

FRAGMENTED SAGE IMPELENTATION #4:
STRONG FOUNDATION ACADEMY (SFA), MALLARD DISTRICT

School demographics/community context: Strong Foundation Academy (SFA) inhabits an early 20th Century brick building and competes for students in a neighborhood with many religious and charter schools. Its enrollment declined in 2007-8 from about 350 to 263 students—nearly closing its doors. 95% were students of color (the school serves mainly Black students) and 94% qualify for free or reduced lunch. 17% of students had Individualized Education Plans (IEP's). The first grade team was small -- a veteran white male who was fairly new to first grade and a long term substitute who was an African American woman. The school served children PK-5th grade.

What makes this school unique: This was the only school in our sample fighting to keep its doors open. After being recruited by neighborhood charter schools, families who wanted to return to SFA after third Friday count were forced to find another school for their children. The attendance funds for the students remained at the charter school and SFA's principal could not admit them because SAGE capped class size and the school had not money to hire additional staff. Staff had just written a grant to provide family resources and programs at a nearby community center.

SAGE configurations in first grade: 15:1

Administrative context: Kendra Lawrence was an African American veteran principal at this school. She had clear ideas about what would make SFA stronger. She wanted teachers to follow the school's curricula as written. She worked personally on strategies for improving math scores. She wanted to use a new technology, Instructional Response pads, to teach students basic math skills in a fun way. As the equipment was quite expensive, she planned to run these supplementary classes herself.

Curriculum context: The Strong Foundation Academy curriculum was unique. Seven years before our visit, the school received a grant to institute the particular program used at the school. The principal and first grade teachers liked the structured approach. One teacher followed the script closely on the day we observed, the other did not. In the curriculum, students are tested frequently and switch classes based on ability. The ability groups are mixed-age, with 1st-3rd graders in the same classroom. All staff members (both classroom and supplementary) taught the curriculum in literacy classes to lower class sizes.

CLASS: School CLASS quality=3.42, 12th out of 12 for our sample
Emotional Support=4.05, Classroom Organization=3.70, Instructional Support=2.50

Professional development context: Teachers had received ongoing training in Strong Foundation Academy curricula when the program was first implemented several years before. In the meantime there had been staff turnover. Staff complained of receiving no training in conjunction with the brand new math text series and saw the need for improving their technology skills. Teachers were expected to participate in learning walks and critique practice in other classrooms during one of two planning periods per week. There had been no training about the SAGE program. Though the school had received the SAGE manuals from the district recently, teachers had not read them.

SAGE at this school: SAGE was fragmented in this school. Rather than perfecting their roles, the administrator and teachers spent time and energy inefficiently. The principal planned to teach 4th grade math sections for test prep herself and teachers brought strategies from the intermediate grades that did not synchronize well with student needs. The teaching was quite uneven between the two 15:1 classrooms observed and reinforcement systems between the rooms competed. Time for teachers to collaborate was limited by little prep time and other demands. The lower number of students was appreciated by staff as it was easier for them to manage and give feedback to students. Administration felt SAGE both helped teachers in the classroom and made the job of keeping the school open more difficult within a competitive school marketplace as it limited her ability to receive new K-3 students after the third Friday count.

TYPE II: CLASSROOM DEFINED SAGE IMPLEMENTATION SCHOOLS

#1: Davis

#2: Dickinson

#3: Edge

#4: Hughes

#5: Pryor

- Low levels of SAGE synergy: School-level organizational cultures subsuming SAGE are not in place. SAGE resources and relationships are negotiated mainly by teachers at the classroom level.
- Highly variable levels of classroom emotional, organizational and instructional support for learning within and among Classroom Defined SAGE schools
- Wide-ranging value added student outcomes

CLASSROOM DEFINED SAGE IMPLEMENTATION #1:
DAVIS ELEMENTARY SCHOOL, MALLARD DISTRICT

School demographics/community context: Davis Elementary School is very large, serving over 700 students. It is located in a Latino/a neighborhood and most kids walk to school. Nearly 70% of the student body is Latino/a, about 10% Black and 20% White. 85% qualify for free or deuced lunch and 14% qualify for special education services. The teachers we spoke with were all female and White, with the exception of one Latina.

What makes this school unique: The school implements a full immersion model, teaching purely in English. There were only a couple Spanish-speaking staff members at the school. The Latina first grade teacher was often pulled out of the classroom to translate between students or families and school staff. One of the first grade teams had the cluster of students with disabilities and a special educator functioned as a part time third member of that team.

Respect was a theme that played out at classroom, grade level team, and school levels. One notable commonality between the three Davis classrooms was their use of the hallway. Space was tight in the school and the wide hallways were equipped with tables, chairs, and whiteboards. We observed several groups working in the hallways during our visit. The computer lab and library were also used as pull-out spaces. Working outside the four walls of the classroom was a normal occurrence for each student.

SAGE configurations in first grade: 30:2 team taught

Administrative context: The principal, Jenelle Krispin, is an African American woman with a gracious demeanor. She is a veteran special education teacher and former Assistant Principal in Charge at the school. This is her first year as principal. The staff regards her with respect and she seems keenly aware of the social climate in the school. Staff have felt comfortable coming to her to discuss problems such as power struggles within teams. The teachers insisted that they were the engine that ran the school. Their principal supported them in their instructional efforts and believed that quality SAGE programming was up to the teacher(s).

Curriculum context: Two new curriculum coordinator positions began in the 2007-8 school year. Both were pulled from the first grade team; the literacy position in the fall and the math position in the spring. The coordinators taught classes, pulled small groups, and modeled lessons for general educators. Teachers reported that they were currently working on curriculum alignment school-wide. They enjoyed much leeway in designing unit and lesson plans that were often thematic and integrated, describing their programs as "individualized for the students *and* for the teachers." The teachers described themselves as focused on learning targets, but said that how teams reached goals was different in each classroom.

CLASS: School Class Quality=4.98, 4th out of 12 schools in our sample
Emotional Support=5.30, Classroom Organization=5.39, Instructional Support=4.26

Professional development: The teachers described their practice as currently "cutting edge." Teachers had not received guidance into appropriate strategies for teaming—for some teaming was a matter of personality and philosophy, not strategy, while others were open to learning more. The school had received team teaching guidelines from the district but had not read them.

SAGE at this school: SAGE at Davis was defined at the classroom level. Mrs. Krispin underscored the importance of individual teachers being the key to quality instruction. The teaching teams molded the resources provided by SAGE into a wide range of practices representing a range of quality. We saw wildly divergent teaching styles. They had recently shifted to 30:2 configurations in first grade. All three teams had new partnerships—two were working reasonably well and one had crumbled by spring. In the broken 30:2 team, a long term substitute filled in as Davis searched for someone to permanently replace the teacher who had shifted to a teacher leader position.

CLASSROOM DEFINED SAGE IMPLEMENTATION #2:
DICKINSON ELEMENTARY SCHOOL, MALLARD DISTRICT

School demographics/community context: In this small PK-5 school, virtually all of the students are African American (98%) and qualify for free or reduced lunch (95%). The first grade teaching staff was uniformly White and female. The three first grade teachers are veterans, with almost 60 combined years of experience at the school. They described the racial demographic as shifting from a racially and ethnically diverse student body to a nearly all Black student body over the years. Most of the students were currently bused in from other parts of the city. The teachers described the level of student mobility as extremely high.

What makes this school unique: The interior of this school was quite beautiful. The building was newer than most visited and had a very open architectural feel. Visible through a glass wall were inviting rows of neatly-shelved books. (Unfortunately, the school had lost their librarian position, along with several other specialists.) The hallways were decorated with colorful examples of children's artwork. There was firm attention to correctness and order noted as teachers guided their classes through the hallways. Each classroom observed was spacious and colorful. One in particular had multi-leveled alcoves and the whimsical touch of a silk tree. The school secretary and literacy coordinators were both exceedingly gracious individuals who welcomed and oriented us to the school.

SAGE configurations in first grade: 15:1's

Administrative context: There was a brand new principal working in the school, Jacqueline Rhodes—an African American woman who was a former middle school teacher and Assistant Principal. She replaced the long-time administrator who was dearly regarded by the staff we interviewed. The administrative change carried with it a shift toward a data-driven, achievement-focused Professional Learning Communities approach in line with district initiatives. The previous administrator had favored more individual teacher autonomy in the development of best practices. The new principal met weekly with teaching teams to institute a focus on improvement through analysis of student data, as reportedly encouraged by the district. Ms. Rhodes planned to hand off some of this responsibility to the literacy coordinator eventually. The principal was concerned about how the changes were being received by the teachers, who did speak of some resistance to the new organization. Ms. Rhodes described the staff as dedicated but behind the times in terms of their practices.

Curriculum context: Staff worked to address district guidelines including Marzano's framework and Bloom's Taxonomy in curriculum development. Dickinson organized monthly thematic Socratic seminars around key readings. The current theme was Black History Month and older students performed a play on this theme for the student body. The staff used a guided reading approach to literacy supported by a basal series. Teachers incorporated song, big books, multisensory and hands-on lessons, art, and learning centers—as well as small group reading—into their work. Mathematics instruction was text-based and first grade lessons emphasized using manipulatives to aid concept development. Staff felt that parental involvement in homework and in the school was overall sorely lacking and advocated for more social services within the school.

CLASS: School CLASS quality=4.80, 6th out of 12 schools in our sample
Emotional Support=5.46, Classroom Organization=5.42, Instructional Support=3.53

Professional development: When SAGE first began, teachers attended district SAGE trainings. Topics included team teaching, content area teaching, and working with small groups. Nothing was currently offered relating to SAGE programming for 15:1's. However, staff reported that there had been a recently-distributed district-sponsored manual on SAGE team teaching strategies. Teachers attended general district PD on curriculum and teaching content. Teachers who went to workshops were expected to share what they learned with the school staff.

SAGE at this school: SAGE was currently classroom-defined by veteran teachers with a long history of professional autonomy. Mrs. Rhodes was intent on assertively moving toward a model of teaching and learning organized at the school level. SAGE was not a critical piece of her vision for a schoolwide Professional Learning Community. The three classrooms easily could have belonged to three different schools. Each teacher had very different teaching and organizational and disciplinary styles and there was a wide range of classroom quality.

CLASSROOM DEFINED SAGE IMPLEMENTATION #3:
EDGE ELEMENTARY, MALLARD DISTRICT

School demographics/community context: The Edge Elementary School building sprawled over its hilltop perch overlooking busy urban streets, accommodating its 702 PK-8th grade students. The junior high students had been added recently and were housed in a new addition to the building. Students attending were predominantly children of color (89%). 82% of the students qualify for free or reduced lunch. 22% of the students at Edge Elementary received special education services. About half of the students lived outside the neighborhood and arrived each day by bus. Five of the six first grade teachers were White females. One was a woman of color.

What makes this school unique: The first grade staff was comprised of 5 veterans and one new teacher and represented a range of teaching practices and time working as teams. The teachers enjoyed more preparation time than most teachers in the district as they had a full schedule of specials. However, they did not use this time for grade level meeting and planning. That was done occasionally after school. Edge had a school-wide behavior incentive system in place. The children could earn special rewards like movie passes. Teachers spoke highly of the system. While some of the teams explained that classroom management could be a challenge, they appreciated the structure and consistency the system provided.

SAGE configurations in first grade: 30:2 ("shared" space, team teaching and doubled-up 15:1's)

Administrative context: William Haverford, an African American, was deep into his 3rd year as principal of Edge Elementary. He formerly lived in the neighborhood and was aware of local concerns. He saw himself as an open-minded administrator, ready to lend an ear but hesitant to take action in the face of problematic circumstances. Staff were concerned that within this administration, team teaching matches were made randomly, with little regard for shared philosophy.

Curriculum context: The school had new math and reading text series. Literacy instruction incorporated a balanced literacy approach. There were a potpourri of instructional formats observed—from highly engaging to bland. Students created pet show awards to personalize creative writing stories, discussed personal experiences with bees and honey in small discussion groups, contrasted fact and fiction, played word games, and filled out tedious workbook pages.

CLASS: School CLASS quality=4.77, 7th out of 12 schools in our sample
Emotional Support=5.27, Classroom Organization=5.17, Instructional Support=3.88

Professional development: Professional development at the school focused on training teachers to use new math and reading series. The teachers had recently received a district-developed SAGE handbook for team teaching in their mailboxes and commented that their school was not in line with many of the team teaching considerations provided.

SAGE at this school: The loose administrative structure allowed for the veteran staff to define and practice SAGE in a variety of ways at the classroom level. This was the only school in the sample to house such a diverse group of 30:2 configurations. The three first grade pairings at Edge represented the best, middle, and worst of classroom quality.

CLASSROOM DEFINED SAGE IMPLEMENTATION #4:
HUGHES ELEMENTARY SCHOOL, MAXWELL DISTRICT

School demographics/community context: With its attendance hovering at about 320 students, Hughes is one of the smallest schools in our sample. This is one of the last remaining neighborhood schools in Maxwell District—just about 20% of the students are bused in. 34% of the student population is Latino/a, the remainder mostly White with some African American and Asian students as well. 56% of students live in poverty and 10% receive special education services. The school has a large ELL program, including bilingual and ESL services, with 40% of students qualifying. The school has seen a fairly dramatic shift in race and class makeup over the past 6-7 years, becoming poorer and more diverse. It has a reputation of being one of the better high-poverty schools in the district. The three observed first grade teachers were White females and the principal a White male.

What makes this school unique: Hughes had straight Kindergartens and 1st grades, second-third combined classrooms and fourth-fifth combined classrooms. The fourth-fifth classroom had 26-27 students per classroom and the principal admitted that the class size discrepancies between primary and intermediate levels create some tensions. There was a bilingual English/Spanish section at each grade level and ELL programming available for non-bilingual classes. The staff said they had tried, in the past few years, to create a really welcoming atmosphere for Latino/a families.

SAGE configurations in first grade: 15:1, 3 regular sized and 2 smaller spaces

Administrative context: Dave Marchard, a White administrator in his third year at Hughes, was a laid-back principal. He facilitated a strong staff rather than led them in a particular direction.

Curriculum context: Like all Maxwell schools, Hughes used a balanced literacy program. Four Block math was a program they were moving toward implementing. Staff was intent on bringing the necessary resources together to meet learning standards.

CLASS: School CLASS quality=5.61, the overall highest in our sample
Emotional Support=5.97, Classroom Organization=6.01, Instructional Support=4.86

Professional development context: These teachers were focused on improvement and hungry to learn more. Staff noted that scheduling, recess duties, etc. fragmented time available for staff collaboration. There was an Instructional Resource Teacher providing materials, feedback and modeling for staff.

SAGE at this school: SAGE at Hughes was defined at the classroom level with teachers expressing the need for more synchronized time in the schedule to collaborate. Mr. Marchard described Hughes as "a comfortable place to be" with low staff turnover, though numbers issues shaped tensions within the school. The first grades were housed in two kinds of classrooms: 3 regular size classrooms housed groups of approximately 17 and two "pocket classrooms" were created when two rooms were turned into three. These tiny rooms accommodated 12-13 students. The pocket classroom teachers complained of having to have "mobile" centers in buckets that were taken out and then stored out-of-the-way when needed.

CLASSROOM DEFINED SAGE IMPLEMENTATION #5:
PRYOR ELEMENTARY, MALLARD DISTRICT

School demographics/community context: Pryor is crowded—so much so that some K3 and K4 sections were located off-site. This crowding is in part to the move to a K-8 neighborhood school model. The school was housed in an interesting old school building with multiple levels, hardwood floors, off-sized rooms, and many nooks and crannies. The school is predominantly African American (96%). 93% of students qualified for free or reduced price lunch. 17% of the students qualified for special education services. The three female first grade teachers had each worked at the school for many years. One teacher was African American and two were White.

What makes this school unique: Though overall a newer staff, the 15:1 first grade teachers were veterans of the school. With a history of using multiage instruction and child-centered methods, Pryor was transitioning to standards based teaching. Two of the sections were 1-2 and one was a straight first grade. The 1-2 teachers regrouped for math, one taking the first graders and one taking the second graders. The school once had a wonderful arts program that included musicals, photography, art, African dance. Most of those special activities and classes were lost in the wake of budget cuts. As a result, the teachers had only two short periods for planning time each week, limiting opportunities for collaboration.

SAGE configurations in first grade: 15:1

Administrative context: Charles Putnam, an African American, was getting his feet wet in the first year as an administrator in this challenging context. He was in the process of learning the basics of the SAGE program. Mr. Putnam used the Instructional Practices Inventory (IPI) to support instruction through formative assessment and feedback. He believed that SAGE—in conjunction with parent involvement and support—provided the attention that each child needed to have a fair chance at achievement. He spoke highly of his staff and expressed faith in their abilities to teach individual students. Teachers appreciated his ability to provide clear behavioral expectations school wide and noted a great change in atmosphere over the past administrator.

Curriculum context: The teachers have a good deal of freedom in developing literacy instruction. Breakthrough to Literacy (computer based reading) and Reading A-Z (leveled reading program with consumable books to send home) were common tools used at the primary level. Teachers worried, however, that A to Z Reading would be threatened by budget cuts that would affect the staff in 2008-9, noting that the reproducible take home reading books were crucial for skill building and connecting with families. Everyday Math at Pryor incorporated a variety of games and manipulatives. Teachers incorporated hands-on activities like painting, growing plants, and hatching tadpoles as part of the curriculum.

CLASS: School CLASS quality=4.21, midrange, 8th out of 12 schools in our sample
Emotional Support=5.05, Classroom Organization=4.24, Instructional Support=3.35

Professional development: The district provided workshops that teachers were encouraged to attend. Banking days were occasions for speakers on topics such as reading interventions or Everyday Math. There was a school literacy specialist who helped put programs such as DIBELS in place.

SAGE at this school: At Pryor, teachers defined SAGE practice within their own classrooms as teaching to children and not to the curriculum. The principal respected and supported teachers' work. From an administrative perspective, SAGE meant providing students attention to increase achievement and quell behavior issues. Teaching was viewed as an individual activity.

TYPE III: SCHOOL INTEGRATED SAGE IMPLEMENTATION SCHOOLS

#1: Language Learning Academy (LLA)

#2: Valleyview

#3: Woodhouse

- Higher levels of SAGE synergy: Administrative vision, school models of collaboration and classroom practice well aligned
- Higher levels of classroom emotional, organizational and instructional support for learning
- Positive value added student outcomes

SCHOOL INTEGRATED SAGE IMPLEMENTATION #1:
LANGUAGE LEARNING ELEMENTARY SCHOOL, MALLARD DISTRICT

School demographics/community context: Language Learning Elementary School has an enrollment just under 400 students. 59% of the students are African American, 34% are White, 4% are Asian, and 3% are Latino/a. More than half of the children are eligible to receive free or reduced-price lunch. The school recently relocated from the outskirts of the district to a central—more urban— location. This has contributed to a shift in demographics, increasing racial and socio-economic diversity. The veteran teachers are White women.

What makes this school unique: The school is home to a world language immersion program. It is an open enrollment or "choice" program, hosting students from across the district. Even before the district had a "school choice" or open enrollment program, this school was part of what was known as the "suburban exchange" program to aid in desegregation. The program has been in the district for 30 years and has recently moved to an older, architecturally impressive school building, shared with an urban academy middle school. As an immersion program, all instruction in early elementary classrooms is in a non-English language. In second grade, they begin to phase English education into the curriculum.

SAGE configurations in first grade: 15:1

Administrative context: Patricia Murphy, a White woman, is the principal of Language Learning. SAGE began prior to her tenure. Mrs. Murphy prioritizes high quality, research-based teaching strategies. She has profound respect for her teachers. There is a Learning Team with a core group of six staff members within the school that is responsible for the administrative agenda setting (though all Learning Team meetings are open to any staff member who chooses to attend). There is also a literacy coach and a math teacher leader.

Curriculum context: Teaching in a second language while adhering to the district standards has its challenges. Describing their approach as "eclectic," they primarily use textbooks imported from abroad that help them work toward the same goals as other elementary schools in the district.

CLASS: School CLASS quality=5.13, the 3rd highest of 12 schools in our sample
Emotional Support=5.56, Classroom Organization=5.52, Instructional Support=4.32

Professional development: When they first became a SAGE school, there were SAGE trainings through the district where they learned about team teaching, content area teaching, and working with small groups. However, this only lasted for a few years due to a lack of funding. More recently, most of their professional development has been during staff meetings and taught by the literacy coach or the math specialist. Much of their professional development is embedded and collaborative. For example, the teachers we spoke to have found their writers' workshop professional development particularly helpful. Others described how they are working with their math teacher leader to increase their understanding of using constructivist approaches during math lessons. A focus on meta-cognition undergirds many of their professional development activities. They also have banking days that are used for professional development.

SAGE at this school: SAGE at LLA is largely incorporated into the fiber of school and classroom level organization and practice due to strong focused leadership and collaborative school culture attuned to children's needs. The staff is intent on honing their knowledge, ongoing assessment and excellent curricula**.** There are challenges, however. Initially, it was difficult for the school to afford SAGE since the percentage of the students who were eligible to receive free or reduced-priced lunch was relatively low. Another challenge for this school has been finding enough elementary teachers who are fluent in the world language for SAGE classrooms.

SCHOOL INTEGRATED SAGE IMPLEMENTATION #2:
VALLEYVIEW ELEMENTARY SCHOOL, MAXWELL DISTRICT

School demographics/community context: Valleyview is located in between several neighborhoods. The vast majority of students are bused due to the distance and busy roads near the school. This school is the most racially and ethnically diverse in our sample, serving approximately one-tenth Hmong, one-third African American, one-third Latino/a, and one-third White children. 74% of students qualify for free or reduced price lunch and 17% qualify for special education services. A large percentage of Valleyview children—41%--receive English Language Learner support. Two White females and one White male participated in the study.

What makes this school unique: The organization of the school is quite unique. The principal, Ben Masters, has instituted an integrated model of education with service provision within core classrooms. The philosophy is to embed specialists and differentiate instruction within classrooms. Instructional teams included K and 1st grade along with special education, Title I or ESL teachers (or a bilingual resource specialist in one case). A bilingual K/1 classroom occupied a large room with two bilingual teachers and a bilingual resource specialist. Two other K-1 teams worked in suite-like spaces. In these suites, K and 1st grades operated separately for much of the day with some combined activity for morning meeting or centers. Organizational structures varied by teams, with some teams sharing all instructional tasks and others departmentalizing. The structure allowed flexibility for more small group and individual work with students.

SAGE configurations in first grade: 30:3 and 40:4 team teaching

Administrative context: The White principal, Ben Masters, was in his third year at Valleyview. His background included policy work with the federal government, teaching, and administration in a rural district in the state before taking a position in Maxwell. His philosophy of inclusive schools was a spark for change that was well-received by adaptable, dynamic teachers and staff. His approach to "building capacity," fit well with a staff that had a strong collaborative foundation.

Curriculum context: There is a rich balanced literacy curriculum with thematic studies in science and social studies. Math is very hands-on and center-based, using cognitively guided instruction. Class meetings are another important part of the curriculum. We observed much center and small group work. One classroom is a bilingual Spanish/English model.

CLASS: School CLASS quality=5.53, 2nd out of 12 schools in our sample
Emotional Support=5.97, Classroom Organization=5.83, Instructional Support=4.79

Professional development: SAGE was well-integrated within Valleyview's instructional design. There were math, literacy and ELL support teachers providing cohesive professional development well-attuned to particular classroom needs. Teachers recognized the importance of attending to instructional kinks as they worked together—none of them were new to teaming, but multi-aging was brand new for some. The staff was excited about a training they had taken recently on a new model targeting strategies for assessment and intervention across grade levels. The teachers felt that continued education about these ideas, as well as more information about multi-aging, looping, and team teaching strategies may be beneficial.

SAGE at this school: SAGE was integrated into all levels of school ecology. The instructional teams provided one teacher for every 10 students. This format varied by team to maximize student instructional contact. The teachers discussed issues openly within their teams, though they wanted more time to develop relationships as a K-1 grade level. One team spoke of how their shared philosophy of education facilitated all of their work developing their students. Teachers were able to use strategies they learned through PD or as specialists to help all kids in their classrooms.

SCHOOL INTEGRATED SAGE IMPLEMENTATION #3:
WOODHOUSE ELEMENTARY SCHOOL, MALLARD DISTRICT

School demographics/community context: Woodhouse was a huge PK- 5th grade school educating 849 students. Located in a lovely old brick building in a sprawling urban neighborhood graced with brightly-painted Spanish architecture, the school was home to a student body of mainly students of color (93%). The vast majority of students (82%) were Latino/a. Woodhouse was the poorest school in our sample, with 95% of the students qualifying for free or reduced lunch. There were four 30:2 first grade classrooms, two bilingual Spanish/English and two monolingual English. We observed both monolingual classrooms and one of the bilingual classrooms. One monolingual classroom was divided as a shared space configuration and we observed one teacher's practice. One of the team teaching partners in a bilingual classroom had been recruited into an administrative position. There was a substitute working in his place. Two of the classrooms observed had educational assistant support at literacy time. There were many new teachers at the school. We observed one veteran, three first or second year teachers, and one substitute. The bilingual teacher was a Latina veteran teacher, a native Spanish speaker. The teacher in the 30:2 shared space classroom was also a native Spanish speaker, though she taught in a monolingual setting. Both of the 30:2 team partners spoke Spanish as well. They noted that this allowed for freer communication with local families.

What makes this school unique: Families could choose between placement in either bilingual or monolingual tracks K-5. To facilitate collaboration, teams were given a shared hour per day, a resource that was unusual in the district. Teachers were able to coordinate lessons and ideas between the monolingual and bilingual programs. There were many opportunities for students and families at the school—sports and a multicultural dance team for students, and crafts and technology classes for parents were just two examples. Here we saw lots of engagement, with kids excited about independent projects and cooperative activities they were working on. Student work filled the halls. There were home-made posters for kids running for class president, invitations to join the school's dance team, and personal writing. Teachers noted the wide range of activities available at the school for parents and families, including English instruction, crafts, dance and computers.

SAGE configurations in first grade: 30:2 team teaching and 30:2 shared space

Administrative context: The Latina principal, Kami Puente, and her curriculum specialist were working to increase instructional quality within the school. Literacy and math teacher leaders modeled strategies and provided in-house professional development sessions on instructional strategies plus plenty of time for co-planning. The administrators split one monolingual team into two 15:1 groups so they could pinpoint teacher weaknesses with an eye toward remediation.

Curriculum context: The entire first grade used Direct Instruction (DI) literacy. At this school, DI groups stayed within one classroom and additional support staff sometimes came in to work 1:1 with students or teach small groups. There was not switching among grade levels and classrooms. This way, teachers were better able to understand children's needs and help them to move forward. Teachers went beyond the scripted DI program at times to provide extra support and cues for individual students in their groups. Levels of structure within the curriculum were layered. We saw hands-on math centers, a cut-and-paste Wisconsin mapping activity for social studies, and writer's workshop lessons.

CLASS: School Class Quality=4.91, 5th out of 12 schools in our sample
Emotional Support=5.52, Classroom Organization=5.33, Instructional Support=3.89

Professional development context: The teachers raved about the daily hour of shared planning time. They had not received support in SAGE-specific strategies, such as team teaching suggestions, but the staff was generally well versed in positive strategies for 30:2 practices. Woodhouse staff had a well-attuned curriculum generalist and teacher leaders who modeled instruction in the classrooms. The school had quite recently hosted a workshop on supporting students intellectually by extending student responses and asking good questions. The school was intent on further developing levels of instructional support in this area.

SAGE at this school: Woodhouse was working toward successfully integrating SAGE practice into a well-supported school culture focused on the strengths of children and their families. The atmosphere was overall built on a culture of collaboration, engagement and improvement. SAGE here was recognized as a unique opportunity for growth.