

The Impact of Studying Skillful Teaching 1 (SST1) on Grade 3 Classroom Practices

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SST1 Background

Studying Skillful Teaching 1 (SST1) is a 36-hour course based on the framework of instructional parameters (i.e., management, instructional strategies, motivation, and curriculum planning) and a foundation of essential beliefs about student learning presented in *The Skillful Teacher* (Saphier and Gower, 1997). The course was designed for the Montgomery County Public Schools (MCPS) in cooperation with Research for Better Teaching to support MCPS professional development efforts. The course seeks to expand teachers' repertoire of instructional strategies, help them employ a variety of strategies and behaviors to match the needs of individual and groups of students, develop their participation in a professional learning community, and infuse their classroom practices with positive messages about student learning. The course also seeks to provide teachers with a rich common vocabulary for discussing teaching and learning.

A major goal of SST1 is for teachers to plan and deliver lessons that address Mastery Objectives which focus on student learning and clearly communicate what a student should know and be able to do at the end of the lesson. The teacher who teaches to mastery has determined how to assess if students have achieved the mastery objective, and will include in the lesson or follow-up assessment activities a great deal of checking to see what students know, perceive, or can do. The teacher understands the importance of students learning well, even if less content is covered during an instructional block (Saphier and Gower, 1997).

The first SST course was delivered in MCPS in summer 2000 as a requirement for staff development teachers. Participation in SST1 is not mandatory for classroom teachers, but is highly recommended because of its alignment with the teacher evaluation component of the Professional Growth System. The framework on which SST1 is based corresponds to

the standards on which teachers are evaluated. Since its introduction in 2000, approximately 3,500 MCPS teachers have taken SST1.

Methods

Department of Shared Accountability staff observed 41 Grade 3 teachers in 21 schools for approximately 45 minutes each during May 2005. Pairs of comparable teachers were observed in the selected schools. Additionally, the sample of teachers was matched by years of teaching experience. Finally, each teacher was observed "blind," without the observer knowing who had taken SST1.

Following the observations, the literal notes¹ were analyzed using the following components of the SST framework:

- Routines and momentum—behaviors that a teacher uses to maintain the pace and flow of a lesson.
- Cognitive empathy—instructional strategies for helping teachers understand what students do not grasp and why, and providing appropriate clarification for students (e.g., checking for understanding, using explanatory devices, modeling).
- Big picture—instructional strategies that help define the context of what students are learning (e.g., providing an itinerary, communicating the reason for the lesson, making connections between current lessons and previous or subsequent lessons).

¹ Literal notes are a method of recording classroom and teacher activities during an observed lesson. Principals use literal notes in conducting their evaluative observations of teachers.

- Expectations—key messages teachers communicate about students’ performance (including the patterns and strategies teachers use to call on students).
- Attention—methods teachers use to keep students on task.
- Personal relationship building and class climate—ways in which teachers relate to students (and students relate to one another) that influence the climate of the learning environment (Saphier and Gower, 1997).

Additionally, the analysis included a determination of teachers’ “missed opportunities” in implementing the above-mentioned behaviors in a way that positively contributed to student learning. For example, a missed opportunity to provide cognitive empathy can result in students remaining confused about a concept while the teacher moves on with the lesson. A missed opportunity to call on students equitably sends a negative message to students about the importance of their input to a classroom discussion. The analysis also determined whether the teacher presented a lesson that addressed a mastery objective.

Key Findings

Classroom observations of 41 Grade 3 teachers revealed the following:

- Teachers who had taken SST1 were more likely to teach mastery lessons than teachers who had not taken SST1. Sixty-eight percent of the observed SST teachers taught mastery lessons, while 23% of the non-SST teachers taught mastery lessons (Table 1).
- One indication of a teacher’s ability to match instructional strategies to student needs is the diversity of strategies in his or her teaching repertoire. SST teachers demonstrated a wider variety of strategies in momentum, cognitive empathy, big picture, expectations, and class climate. Non-SST teachers demonstrated slightly greater diversity in personal relationship-building strategies (Table 1).
- Teachers who had not taken SST1 were more likely to miss opportunities to positively impact students’ learning experiences. The SST teacher averaged 1.5 missed opportunities per observation (range: 0–6); while non-SST teachers averaged 5.6 missed opportunities per

observation (range: 0–12) (Table 2).² Overall, 35 percent of missed opportunities observed were attributed to SST teachers, and 65 percent of missed opportunities were attributed to non-SST teachers (Table 2).

- Both those teachers who had taken SST1 and those who had not were more likely to have missed opportunities in the expectations dimension than in other dimensions (14 missed opportunities attributed to 27 SST teachers and 22 missed opportunities attributed to 13 non-SST teachers). Non-SST teachers were equally likely to have missed opportunities in the Cognitive Empathy dimension (22 missed opportunities attributed to 13 non-SST teachers). For all dimensions except Big Picture, missed opportunities were more commonly attributed to teachers who have not taken SST1 (Table 3).

Table 1
Mean Number of Strategies Used by Observed Teachers

Type of Strategy	SST Teachers (N=28)	Non-SST Teachers (N=13)	All Observed Teachers
Taught A Mastery Lesson	68%	23%	54%
Momentum	2.3	2.2	2.3
Cognitive Empathy	3.5	3.3	3.5
Big Picture	3.4	3.0	3.2
Expectations	3.6	3.0	3.4
Personal Relationship Building	1.2	1.5	1.3
Class Climate	1.6	1.5	1.6

² One SST teacher accounted for 22 missed opportunities. This outlier was eliminated from the data reported here. If this outlier was included, the average number of missed opportunities by SST teachers would rise to 2.2 per observation.

Table 2
Mean Number of Missed Opportunities per Lesson

	SST Teachers (N=27)	Non-SST Teachers (N=13)	All Observed Teachers
Missed Opportunities per Lesson	1.5	5.6	2.9
Total Missed Opportunities	39	73	112
	35%	65%	100%

Table 3
Percentage of Missed Opportunities (MOs)
Committed by Observed Teachers, by Type of Strategy

Type of Strategy	% SST Teachers (N=27)	% Non-SST Teachers (N=13)	Total Number MOs
Momentum	30	70	20
Attention	40	60	5
Cognitive Empathy	15	85	26
Big Picture	60	40	20
Expectations	39	61	36
Personal Relationship Building	0	100	1
Class Climate	25	75	4
TOTAL	35	65	112

Conclusions and Next Steps

The findings from the observations of Grade 3 teachers showed that teachers who had taken SST1 are more likely to teach mastery lessons and less likely to miss opportunities to positively impact student learning than those who had not taken SST1. Also, teachers who had taken SST1 demonstrated a greater variety of instructional and classroom-management strategies than those who had not taken SST1.

The overall goal of the evaluation was to examine the impact of SST1 on classroom practices and student achievement. There also is interest in determining which strategies teachers find most effective, and where, in addition to SST1, teachers have learned those strategies. The overall evaluation findings will help the Office of Organizational Development to enhance SST1 training and other MCPS professional development activities to emphasize the strategies targeted by SST1. Therefore, subsequent evaluation activities will include the following:

- Analysis of Grade 3 student outcome data
- Teacher interviews and observations of Algebra 1 classrooms for teachers who have taken SST1 or a special section of SST1 for algebra teachers, and teachers who have not taken SST1

Reference

Saphier, J., and R. Gower. (1997). *The Skillful Teacher: Building Your Teaching Skills*. Acton, MA: Research for Better Teaching.

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