The Effects of Teacher Home Visits on Student Behavior, Student Academic Achievement, and Parent Involvement

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Abstract

This study's purpose was to determine if a teacher home visit program implemented by a Texas-based charter school system resulted in differences in K–12 students' classroom behavior, academic achievement, and parent involvement in school. Study findings indicate positive behavioral, academic, and parent involvement outcomes for students who received a home visit (n = 3,681), compared to a similar group of students who did not receive a home visit (n = 3,681). One-way MANOVAs revealed statistically significant differences between the two groups. Follow-up independent samples t-tests showed that the teacher home visit group had statistically significantly higher levels of academic achievement in mathematics and English/language arts courses, higher levels of positive classroom behavior, and higher levels of parent involvement.

Key Words: teacher home visits, student academic achievement, student behavior, student attitude, student motivation, parent involvement

Introduction

The benefits of parent involvement in a child's education at all levels are well-documented (Castro et al., 2015; Jeynes, 2012; Sheldon & Jung, 2015; Shumow & Schmidt, 2014). Teacher home visit programs are used by many

school systems as a way to build relationships with parents to increase in-school parent involvement and, in turn, increase student achievement. Current research findings support the continued use of teacher home visit programs as a tool to encourage students' academic success and parent involvement in the classroom, with many studies also noting teacher home visit programs' improvement of students' classroom behavior (Lin & Bates, 2010; Meyer & Mann, 2006; Meyer, Mann, & Becker, 2011; Simington, 2003; Stetson, Stetson, Sinclair, & Nix, 2012). Many research studies have reported benefits for both students and parents when teacher home visit programs have been implemented, but fewer studies have specifically examined the impact that teacher home visit programs have on students' classroom behavior, academic achievement, and parent involvement. In addition, much of the current research on teacher home visit programs has been qualitative, utilizing small sample sizes or focusing primarily on teachers' perceptions gathered through interviews and surveys. The following sections summarize some of the existing research on the effects of teacher home visits on (a) students' achievement, (b) student behavior, and (c) parent involvement.

Student Achievement

Studies have shown a positive relationship between teacher home visit programs and students' academic achievement. Teachers, students, and parents perceived teacher home visit programs as a key factor for student academic success in the classroom (Meyer & Mann, 2006; Simington, 2003). In a study involving 26 elementary teachers, 73% of the teachers surveyed felt their students were better prepared for class after the utilization of teacher home visits. Teachers surveyed attributed increased student success, in part, to a home visit conducted by their classroom teacher (Meyer & Mann, 2006). Furthermore, Stetson et al. (2012) found that 78% of the teachers surveyed for their study said that teacher home visits had an extremely positive effect on students' work. A 2015 study of the St. Louis program Home Works! found that home visits also have an effect on student state standardized test scores, with students who received one home visit scoring 5% higher and students who received two home visits scoring 7% higher than students not receiving a home visit (Sheldon & Jung, 2015). Across these studies, the majority of teachers, students, and parents studied agreed that teacher home visit programs contributed to students' academic success (Meyer & Mann, 2006; Stetson et al., 2012).

Student Behavior

With the implementation of teacher home visit programs, schools are choosing to invest time and resources into their students and their students' families,

which in turn positively impacts students' behavior in the classroom. Flannery (2014) explained the unique perspective home visits provide for a classroom teacher. By visiting a student's home, teachers develop a stronger understanding of the factors contributing to a student's behavior in the classroom, as well as overall school performance. This appreciation of a student's background and influences on behavior allows a teacher to modify his or her approach to working with the student, thus allowing for a more meaningful relationship between teacher and student. Not only does this increased understanding of a student impact the teacher's view of the student, but it has been shown to have a positive impact on the student's classroom behavior as well. Stetson et al. (2012) found that 75% of the teachers studied linked home visits to improved student classroom behavior. The reported behavior change also resulted in improved work habits, which then positively impacted the student's academic achievement. This finding supports a Sacramento school district's experience with its teacher home visit program where participating principals reported that student behavior improved due to the home visits (Sandham, 1999).

Parent Involvement

As Sawchuk (2011) explains, "Teacher home visits are based on a commonsense idea: Parents are more likely to be engaged in their son's or daughter's progress through school if they feel that they have a real partner" (p. 1). Several recent studies focused on teachers' perceptions of a strong connection between teacher home visit programs and increased parent involvement. Meyer and Mann (2006) found that 42% of the teachers surveyed reported that teacher home visits increased the rate of parent attendance at conferences, while 38.5% of teachers agreed parental communication had increased. Another recent study noted that of the 60 teachers who completed a survey after conducting teacher home visits, 35 teachers reported that the experience had an extremely positive impact on their relationships with the parents of the students in their classroom (Stetson et al., 2012). In a follow-up study, Meyer et al. (2011) found that 100% of the teachers they surveyed reported that parents' attitudes toward school had improved, as well as their attitude toward the teacher, after participation in a teacher home visit. In addition to increased parental attendance at conferences and increased levels of parental communication, studies have reported that after teacher home visits, parents were more likely to volunteer to help and be more involved at the school (Faber, 2015; Meyer et al., 2011; Stetson et al., 2012). Not only is the impact of increased parent involvement noticed by the teacher, students have also noticed the impact of teacher home visits. In a study of 28 high school students enrolled in an accounting course, Simington (2003) found that students who had participated in a teacher home

visit program shared the same opinions as those noted above by the teachers, with 100% of the students surveyed indicating that parent involvement was important to them and that teacher home visits served as a tool for increasing such involvement.

In addition to overall increased parent involvement, teacher home visit programs have also been found to improve ties between schools and culturally diverse families. Teacher home visits give families an opportunity to share their culture and background with teachers. When teachers understand the culture and expertise of parents and extend the opportunities for parents to get involved, levels of parent involvement have been shown to increase (Baeder, 2010). Peralta-Nash (2003) conducted a study of 20 elementary preservice teachers, each of whom completed a teacher home visit for a child in his or her classroom. Each of the families visited spoke English as a second language. Preservice teachers discussed the importance of allowing the parents to have a voice in their child's education. One preservice teacher commented, "In order for teachers to develop curriculum that honors and respects knowledge, interests, and experiences that students bring into the classroom, parents, students, and teachers need to be engaged in a dialogue" (Peralta-Nash, 2003, p. 116).

Student Attitude and Motivation

Teacher home visits have been shown to positively impact student attitude (Meyer et al., 2011; Simington, 2003; Stetson et al., 2012). Using teacher reflections, interviews, and student self-reported data, the completion of teacher home visits by a teacher seems to have an influence on students' attitudes toward school and the classes they are taking (Meyer et al., 2011; Simington, 2003; Stetson et al., 2012). Stetson et al. (2012) found that 88% of teachers surveyed agreed that they felt teacher home visits had a positive effect on students' attitudes towards class and helped to form a better student–teacher relationship. Teachers surveyed in a 2006 study by Meyer and Mann felt students' attitude toward school and class were much improved after completing teacher home visits. Additionally, 89% of teachers surveyed in a follow-up study completed five years later reported that they felt students' attitudes had improved (Meyer et al., 2011). Along with improved attitude, the same teachers also reported improvements in attendance, with 61% noting improvement.

Purpose of Study

Multiple qualitative research and small-scale experimental studies have described the positive effects teacher home visit programs have on students' classroom behavior, academic achievement, and parent involvement. However,

missing from the research literature are large-scale studies that simultaneously examine the effects of teacher home visits on all three factors. Furthermore, most of these research studies have used weak designs (primarily pretest–posttest designs) that have not included comparison groups. In addition, the findings from previous research are limited in their scope and generalizability due to small samples and lack of quantitative measures. The present study uses a mixed-method approach to provide a more comprehensive understanding of teacher home visit programs and their effects on students, classrooms, and parents. Due to its larger sample size comprised of districtwide teacher, student, and parent data and its quasi-experimental research design with a comparison group, the current study will provide a more comprehensive picture of the effects that teacher home visit programs have on students' classroom behavior, academic achievement, parent involvement, and student attitude and motivation.

Study Context

School Context

The study used data from a Texas-based public charter school system, mostly centered in major metropolitan and the surrounding areas, serving students in grades K–12. The school system has an explicit focus on science, technology, engineering, and mathematics (STEM) areas, reaching out to underserved communities across the state. Many of the system's schools have received national recognition for being academically competitive. Currently, 25 schools within the system are designated T-STEM Academies by the Texas Education Agency. T-STEM Academies serve as lab and demonstration sites with the goals of increasing STEM-related postsecondary readiness, teacher preparation and retention in STEM subjects, and alignment between educational and economic development in STEM fields.

The school system operates 46 schools across seven independent school districts in 17 cities across Texas. The charter system serves almost 28,318 students, the majority of whom are economically disadvantaged (59.4%) and identify with an ethnic minority group. Table 1 provides overall demographic information for the school system's student composition.

Table 1. Overall Student Demographics

	Overall (n = 28,318)	
	n	%
Ethnic Distribution		
African American	5,376	18.98
Hispanic	13,698	48.37
White	4,633	16.36
American Indian	80	0.28
Asian	3,934	13.89
Pacific Islander	21	0.07
2 or more races	576	2.03
Socioeconomic Status		
Econ Disadvantaged	16, 821	59.40
Non-Econ Disadvantaged	11,497	40.60

Source. Texas Academic Performance Reports (TAPR), 2014–15, TEA Snapshot 2014 Summary Tables.

Teacher Home Visit Program

The school system first implemented its teacher home visit program during the 2001–02 academic year at one of its campuses. The foundation of the teacher home visit program rests on the school system's desire to increase student academic achievement, increase parent involvement, and motivate students to demonstrate more positive behavior in the classroom. Although there is quite a bit of time and effort involved in conducting teacher home visits, the school system felt that building parent engagement in this manner was key to the continued success of their students. In fact, building relationships between the school and the home is the driving force behind the program, furthering the system's school–home engagement and support system.

The school system's teachers are asked to conduct home visits with all students; however, they schedule visits on their own and choose which students they visit. Teachers visit students' homes in pairs. Just over 10% of the school system's students receive a home visit each year, with the majority of visits concentrated in Grades K–8. While conducting a teacher home visit, the school system's staff focuses on a student's interests, his/her hopes and dreams, as well as academic and social progress and needs. Also during the visit, parents are informed of the child's progress, showing them where the child is currently functioning both academically and socially, as well as where the child should be academically and socially (Z. Yaman, personal communication, June 21, 2016).

To help ensure the program's success, the school system conducts teacher home visit trainings at the beginning of the year during each school's in-service programs for all participating teachers. Also, individual schools within the school system host teacher home visit kickoff events to launch the start of a new teacher home visit season. General items covered in the teacher home visit trainings include the benefits of teacher home visits to students, parents, and the school; how to schedule a teacher home visit; and what to talk about with parents. While conducting a teacher home visit, the school system's teachers provide parents with a folder that contains such documents as the student's academic and behavior record, a calendar with school academic and social events held during the year, a list of school extracurricular activities, the school's college readiness program, and other school-specific items to help guide the visit's discussion. In order to promote parent involvement and home–school communication, the school staff also provide parents with an introduction to the school system's parent portal software system, which is used as a primary measure of overall parent involvement. The parent portal serves as the primary point of contact between teachers and parents, allowing parents access to students' academic and behavioral performance in real time. The portal's behavioral component tracks students' positive and negative behaviors using a point system derived from each school's discipline management plan. The portal is utilized by all school personnel who interact with students. While visiting, the teachers pay close attention to any parent feedback given and share this information with school administration as deemed appropriate (Z. Yaman, personal communication, June 21, 2016).

Methods

The purpose of this quasi-experimental explanatory mixed methods research study was to determine if the school system's teacher home visit program resulted in differences in classroom behavior and academic achievement of students who received teacher home visit(s) compared to students who did not receive teacher home visit(s). In addition, we examined whether there were differences in the level of parent involvement in school between the two groups of students. Due to the large sample size (n = 7,362), a p-value of .001 was used to determine significance for all tests of statistical inference. A final research question focused on teacher perceptions of the effects of teacher home visits on student attitude and motivation. For the first three research questions, qualitative data were used to expand upon the results of the quantitative data (Merriam & Tisdell, 2016). The fourth research question was based entirely on qualitative data related to teacher perceptions.

Research Questions

1. Are there significant ($p < .001$) differences in the classroom behavior of school system students who received a teacher home visit compared to similar students who did not receive a teacher home visit?
2. Are there significant ($p < .001$) differences in the academic achievement of school system students who received a teacher home visit compared to similar students who did not receive a teacher home visit?
3. Are there significant ($p < .001$) differences in the level of parent involvement of school system students who received a teacher home visit compared to similar students who did not receive a teacher home visit?
4. What are teachers' perceptions of the impact of teacher home visits on student attitude and motivation?

Data Sources and Collection

Quantitative and qualitative data were provided from preexisting school system 2015–16 program records for secondary analysis. All data sources were de-identified. The two data sources included: (a) student records from the 2015–16 school year, and (b) teacher responses to questions regarding student behavior and parent involvement following teacher home visits.

Quantitative Data

In the spring of 2016, the school system provided de-identified student data including the academic, behavioral, teacher home visit, and parent involvement records for over 20,000 (n = 21,003) school system students in grades 3–12. Academic variables included student core course grades in mathematics, science, social studies, and English/language arts for the first two grading periods of the 2015–16 school year. Behavioral variables included the school system's Positive Reward System (PRS) points and Discipline Point System (DPS) for the fall semester of 2015. PRS points are awarded in an online system by each classroom teacher for positive in-school behaviors, such as academic improvement and helping fellow students without being asked. Conversely, teachers log DPS points in the online system for negative student in-school behaviors, including running in the hallway or sleeping in class. The PRS and DPS categories included points assigned to a student by all of his or her teachers for the Fall 2015 semester. Teacher home visit variables included dates and number of school system teachers participating in teacher home visits. Parent involvement data included the total number of times a student's parent logged in to the school system's online parent portal, as well as a breakdown of log-ins inside of the school and outside of the school. We separated parents' log-in data by inside school and outside school to examine whether digital divide issues such as

parent access to technology use at home influenced the log-in data. All school personnel who interact with students can access and utilize the parent portal.

For determination of the final sample, students who received a teacher home visit(s) (n = 3,681) were matched with a comparison group of students (n = 3,681) randomly drawn from the students who did not receive a teacher home visit. The demographic characteristics were examined, and there were no significant differences between the treatment group, comparison group, and the overall population by race or socioeconomic status (as measured by the number of students who received free or reduced lunch). The demographic characteristics of the comparison group sample were determined to be a close approximation (+/- 5%) to that of the teacher home visit sample. Table 2 provides demographic information for both groups.

Table 2. Teacher Home Visit and Comparison Group (No Teacher Home Visit) Student Demographics

	Home Visit Sample (n = 3,681)		Comparison Group (n = 3,681)	
	n	%	*n*	%
Ethnic distribution				
African American	555	15.1	753	20.5
Hispanic	1,925	52.3	1,764	47.9
White	697	18.9	669	18.2
American Indian	9	0.2	14	0.4
Asian	555	15.1	481	13.1
Socioeconomic status				
Economically disadvantaged	1,893	51.4	1,905	51.8
Noneconomically disadvantaged	1,788	48.6	1,776	48.2

Source. School System Program Records.

Qualitative Data

In addition to student data, the school system provided de-identified teacher responses (n = 223) to four open-ended survey questions asking teachers who had completed teacher home visits during the 2015–16 school year to discuss their perceptions of the effects of teacher home visits on student behavior, academic achievement, parent involvement, and attitude and motivation. The survey link was sent to 1,400 teachers, resulting in a response rate of 15.9%.

A total of three responses were removed from the sample prior to analysis, two of which appeared to be respondents answering from a parent perspective and one of which simply provided a web link rather than an answer to a question. This resulted in a final sample of 220 total responses. The open-ended questions provided a rich source of information on the impact of teacher home visits, focusing on noticeable changes in student classroom behavior, academic performance, parent involvement, and changes in students' attitudes and levels of motivation.

Data Analysis

Data analyses for this report were conducted in the summer of 2016. Quantitative analyses of student data were followed by qualitative analyses of teachers' perceptions of the impacts of teacher home visits.

Quantitative Analyses

Student data from the school system's program records were primarily analyzed using Multivariate Analysis of Variance (MANOVA) to investigate whether there were significant (p <.001) differences in students' behavioral and academic achievement data, as well as levels of parent involvement, between the teacher home visit and non-teacher home visit group. All analyses were conducted using a sub-sample of 5,814 students for whom all dependent variables were present in the data. In cases where MANOVAs revealed statistically significant differences, independent samples t-tests were used to identify statistically significant differences between the two groups.

Qualitative Analysis

The research team used constant comparative analysis of teachers' responses to determine emergent themes (Glaser & Strauss, 1967) from the four open-ended questions. A 10% random sample of cases (n = 22) were then re-coded by researchers in order to determine inter-coder reliability, yielding an initial inter-rater reliability of 85%. After coders discussed differences in coding, 100% inter-rater reliability was reached. Due to the large number of responses, each of the responses was quantified by theme in order to provide a frequency count of the number of responses mirroring each of the emergent themes (Tashakkori & Teddlie, 1998). In addition, quotes or phrases illustrative of each theme are provided as a means of expanding the description of each theme.

Results

The results of the school system's teacher home visit program are discussed separately for students' classroom behavior, academic achievement, and parent

involvement. For each research question, one-way multivariate analysis of variance (MANOVA) results are reported, followed by independent *t*-test results, and ending with a qualitative analysis of the open-ended teacher survey responses. Due to the open-ended nature of the survey questions, some responses included multiple themes and were coded accordingly, resulting in an *n* greater than 220 in some cases. In addition, due to a lack of quantitative data focusing on student attitude and motivation, research question four only contains an analysis of the open-ended survey data.

Research Question 1: Are there significant ($p < .001$) differences in the classroom behavior of the school system's students who received a teacher home visit compared to similar students who did not receive a teacher home visit?

The research team conducted a one-way multivariate analysis of variance (MANOVA) by teacher home visit group (visit or no visit) on the student classroom behavior dependent variable measures (PRS and DPS scores) to determine if there were any differences by group. The results of the MANOVA revealed a significant difference between the two groups (*Wilks' lambda* = .996, $F(1, 5813) = 7.86$, $p < .000$).

Independent samples *t*-tests were conducted by teacher home visit group (visit or no visit) on both the cumulative PRS and DPS scores to determine if statistically significant differences ($p < .001$) existed in the classroom behavior of school system students who received a teacher home visit during the first half of the 2015–16 school year, compared to a comparison group who did not receive a teacher home visit. The independent samples *t*-tests were conducted separately for each behavioral measure (PRS and DPS). Students who received a teacher home visit had significantly higher PRS, or positive reward system, scores than students who did not receive a teacher home visit ($p < .001$). Teacher home visits showed a small positive effect for positive classroom behaviors, as measured by PRS scores (Cohen's $d = 0.13$). However, there were no statistically significant differences between the DPS scores of students who received a teacher home visit compared to students who did not receive a teacher home visit. Because there is no limit to the number of PRS and DPS points a student may earn, there were large standard deviations for both measures. Table 3 provides the results of the independent *t*-tests by teacher home visit for student classroom behavior.

Table 3. Independent *t*-test Results for Student Classroom Behavior

Behavior Tracking Points	Home Visit (n = 2,974)		No Home Visit (n = 2,840)		*t*	
	M	*SD*	*M*	*SD*	*t*	*p*
DPS	15.71	20.14	15.56	19.65	-0.24	.808
PRS	20.00	20.97	17.51	18.24	4.81	.000*

Source. School System Program Records.
Note. *p < .001

Qualitative data were also examined in regard to this question. The four themes that emerged from teacher responses regarding differences in student classroom behavior following teacher home visits were positive behavioral impact, positive affective impact, slight or temporary positive impact, and no change or not helpful in impacting classroom behavior. Of the 269 coded responses, 70.26% of survey respondents reported that teacher home visits had a positive effect on students' classroom behavior, either behaviorally (40.15%) or affectively (30.11%), while an additional 7.06% reported a slight or temporary increase in students' classroom behavior. About one-fifth (21.19%) of respondents reported no change, and 1.49% of those surveyed did not provide a response.

With regard to teacher home visits having a positive behavioral impact on students' classroom behavior, one teacher explained,

> Big! I've had students change tremendously. One student wasn't turning in work; well at her home visit I mentioned how great she was, but I would like to get more work from her to be more successful. What do you know, I got more work from her!

As for teacher home visits having a positive affective impact on students' classroom behavior, another respondent shared,

> One impact of the home visit on student behavior was a noted awareness of the teacher and parents' involvement in the student's life. The established communication between the teacher and the student's home helped to foster a respect transcending the classroom environment. The human connection made was a caring bond of respect and interest in the student's success both in and out of school.

Regarding slight or temporary changes in students' classroom behavior after teacher home visits, several teachers commented on how a student would show a positive change in behavior directly after the teacher home visit, but many times this change faded with time. For example, one teacher noted, "It is a temporary solution but tends to not have long lasting effects." Another respondent

pointed out the importance of the existing teacher–student relationship for a teacher home visit to have an impact on a student's classroom behavior, stating that, "I think it is mostly beneficial. However, it does depend on the relationship between the teacher and student beforehand."

About one-fifth of the responses suggested that teacher home visits had no impact on the students' classroom behavior. One teacher's response seemed to encapsulate the thoughts of several surveyed, "It helps, but one visit does not make a big difference." Many teachers openly expressed that they saw "negligible to no impact" on students' classroom behavior due to the fact that "the parents who most need the visits will not allow them." Many expressed a frustration that the students who were behaving well in the classroom had parents who were open to teacher home visits, while those students who were struggling behaviorally in the classroom had parents who were the most reluctant to allow a teacher home visit, if they responded at all to the teacher home visit invitation. Table 4 provides the frequency and percent of each theme that emerged in question one.

Table 4. Themes from Open-Ended Survey Question #1 - Student Classroom Behavior

	Question #1 (n = 269*)	
	n	%
Positive Behavioral Impact	108	40.15
Positive Affective Impact	81	30.11
Slight/Little/Temporary Impact	19	7.06
No Change/Not Helpful	57	21.19
No Data Recorded	4	1.49

Source: School System Program Records.

**Note.* Responses containing evidence of more than one theme were dual-coded resulting in an *n* that is greater than the number survey respondents.

Both quantitative and qualitative data appear to indicate that teacher home visits result in higher levels of positive student classroom behavior, but do not have a statistically significant impact on negative student classroom behavior. In addition, of the 269 survey responses, about 70% of the responses indicated the perception that teacher home visits positively impacted students' classroom behavior either behaviorally or affectively, while almost 30% responded slight, temporary, or no student classroom behavior impact.

Research Question 2: Are there significant ($p < .001$) differences in the academic achievement of the school system's students who received a teacher home visit compared to similar students who did not receive a teacher home visit?

The research team conducted a one-way multivariate analysis of variance (MANOVA) by teacher home visit group (visit or no visit) on the student academic achievement dependent variable measures (second quarter course grades in mathematics, science, English/language arts, and social studies) to determine if there were any differences by group. The results of the MANOVA revealed a significant difference between the two groups (*Wilks' lambda* = .994, $F(1, 5813) = 9.68$, $p < .000$).

Next, an independent samples *t*-test was conducted by teacher home visit group (visit or no visit) on students' second quarter course grades in mathematics, science, English/language arts, and social studies to determine if there were statistically significant differences ($p < .001$) in the academic achievement of the school system's students who received a teacher home visit during the first half of the 2015–16 school year compared to a comparison group who did not receive a teacher home visit. The independent samples *t*-tests were conducted separately for each academic measure. Students who received a home visit had statistically significantly higher mathematics and English/language arts second quarter grades than students who did not receive a teacher home visit. Additionally, teacher home visits showed a small positive effect for both subjects (mathematics, Cohen's $d = 0.13$, English/language arts, Cohen's $d = 0.12$). These results are consistent with effect sizes reported in previous studies measuring the effect sizes of non-standardized measures of student achievement, such as course grades (Castro et al., 2015; Jeynes, 2012). Table 5 provides the results of the independent *t*-tests by teacher home visit for student academic achievement.

Table 5. Independent *t*-test Results and Effect Sizes (Cohen's *d*) for Student Academic Achievement

Second Quarter Grades	Home Visit (n = 2,974)		No Home Visit (n = 2,840)				
	M	*SD*	*M*	*SD*	*t*	*p*	*d*
Math	84.53	10.14	83.18	9.97	5.617	.000*	0.13
Science	85.38	9.53	84.79	9.65	2.570	.010	0.06
English	84.53	10.14	83.18	9.97	5.143	.000*	0.12
Social Studies	86.76	9.16	86.20	9.03	2.524	.012	0.06

Source. School System Program Records.
Note. *$p < .001$

The four themes that emerged from analysis of teacher responses regarding academic achievement were: positive academic impact, positive affective impact, slight or temporary positive impact, and no change or not helpful in impacting academic achievement. Around one-third (34.14%) of the teachers reported that teacher home visits had a positive academic impact on students due to behaviors shown in class, such as increased focus or motivation. Around 20% (20.88%) of the teachers surveyed reported that they noticed a positive affective impact on student academic achievement after completing teacher home visits, which many respondents attributed to the cultivation of important relationships with both students and their parents. Slightly over 4% (4.42%) of teachers responded that there was a slight or temporary positive impact on student achievement after teacher home visits but did not see the changes as significant or long lasting. Over one-fourth (28.11%) of teachers reported no change in student academic achievement after students had received a teacher home visit. Finally, 12.45% of teachers surveyed did not provide a response. Table 6 provides the frequency and percent of each theme that emerged in question two.

Table 6. Themes from Open-Ended Survey Question #2 - Student Academic Achievement

	Question #2 (n = 249*)	
	n	%
Positive Academic Impact	85	34.14
Positive Affective Impact	52	20.88
Slight/Little/Temporary Impact	11	4.42
No Change/Not Helpful	70	28.11
Theme 5 – No Data Recorded	31	12.45

Source: School System Program Records

**Note.* Responses containing evidence of more than one theme were dual-coded resulting in an *n* that is greater than the number survey respondents.

A total of 249 responses were coded regarding the impact teacher home visits had on students' academic achievement. Of the 249 coded responses, 85 (34.14%) noted that teacher home visits had a positive impact in student academic achievement based on the students' behaviors in the classroom. Comments such as, "Students pay attention to class more than they did before the home visits," as well as responses noting that, "Students took my course more seriously and were motivated to increase grades" after teacher home visits help to illustrate the perceived impact of the home visits on students'

academic achievement based on students' classroom behaviors. In addition to an impact on student achievement based on student classroom behaviors, 52 teachers (20.88%) reported increases in academic achievement due to better relationships and/or better communication created by teacher home visits. Teachers provided comments such as, "the students felt more comfortable with the teacher–student relationship once the home visit was conducted," and, "I was able to witness an increase in classroom participation, as the student had more confidence to participate once they knew their teacher personally." One respondent noted, "Our relationship was different in that they [the student] felt special and knew I cared about them." Of the 220 teachers surveyed, 70 (28.11%) noted that they saw no change in student academic achievement after teacher home visits, with several teachers noting, "I did my home visits early in the school year, so I could not compare before and after in terms of student academic performance."

The statistically significant differences in academic achievement in mathematics and English language arts for students who received a teacher home visit compared to students who did not receive a home visit were mirrored by the school system's teachers surveyed, with 34.14% noting an impact on student achievement through classroom behavior and 20.88% reporting an impact on student achievement through affective factors, such as strengthened relationships and better communication. In addition to these findings, the survey results may help explain why some teachers reported no change in academic achievement, with several reporting that teacher home visits were conducted early in the school year with no baseline on which to gauge improvement.

Research Question 3: Are there significant ($p < .001$) differences in the level of parent involvement of the school system's students who received a teacher home visit compared to similar students who did not receive a teacher home visit?

The research team conducted a one-way multivariate analysis of variance (MANOVA) by teacher home visit group (visit or no visit) on the parent involvement dependent variable measures (total, inside, and outside of school parent portal log-ins) to determine if there were any differences by group. The results of the MANOVA revealed a significant difference between the two groups (*Wilks' lambda* = .984, $F(1, 5813) = 61.49$, $p < .000$).

An independent samples *t*-test was conducted by teacher home visit group (visit or no visit) on the cumulative number of parent portal log-ins for each student to determine if statistically significant differences ($p < .001$) existed in the level of parent involvement of the school system's students who received a teacher home visit during the first half of the 2015–16 school year compared

to a comparison group who did not receive a home visit. Parent involvement data included the total number of log-ins logged for each student, the number of within-school log-ins logged for each student, and the number of outside of school log-ins logged for each student by the school system's parent portal.

Three independent samples *t*-tests were conducted separately for each of the parent portal log-in types: total parent log-ins, within-school log-ins, and outside of school log-ins. Students who received a teacher home visit had a significantly higher number of parent portal log-ins across the three types than students who did not receive a teacher home visit ($p < .001$). Teacher home visits showed a small positive effect for total parent log-ins, within-school log-ins, and outside of school log-ins (total, Cohen's $d = 0.18$, within-school, Cohen's $d = 0.23$, outside of school, Cohen's $d = 0.16$). Because there was not a limit to the number of times a parent can log into the parent portal, there were large standard deviations for all three measures. Table 7 provides the results of the independent *t*-tests by teacher home visit for level of parent involvement.

Table 7. Independent *t*-test Results for Level of Parent Involvement

Parent Log-Ins	Home Visit (n = 2,974)		No Home Visit (n = 2,840)				
	M	*SD*	*M*	*SD*	*t*	*p*	*d*
Total	218.28	267.94	169.85	283.71	7.53	.000*	0.18
Within-School	15.78	27.97	10.07	22.47	9.66	.000*	0.23
Outside School	202.50	263.59	159.78	278.61	6.76	.000*	0.16

Source. School System Program Records.
Note. *$p < .001$

The four themes that emerged from teacher responses regarding changes in parent involvement following teacher home visits were increases in involvement, slight or temporary increases in involvement, decreases in involvement, and no change in involvement. Over half of the 220 respondents felt that parent involvement increased following teacher home visits (51.36%), while an additional 3.64% reported a slight or temporary increase in parent involvement. A small percentage of the teachers reported a decrease in parent involvement (1%), with 28.64% reporting the visits caused no change in parent involvement. Just over 15% of the teachers surveyed did not provide a response (15.45%).

With regard to increases in parent involvement following teacher home visits, one teacher noted that, "After you made a home visit, you saw that most of the parents who get involved, you made [a] home visit to them." Another respondent said, "Parents felt comfortable in talking with me and were thankful

for the personal approach to their child's education." Regarding slight or temporary changes in parent involvement, several teachers noted that some parents either were not sure how to support their child at school or were limited due to circumstances. For example, one teacher stated, "Parents seemed more aware but still not knowing how to support child at home due to lack of resources," while another pointed out limited involvement due to family circumstances, noting that, "[one] student's father worked long hours, and the student's mother was busy caring for the student's brother, who has a disability."

The limitation of involvement due to home or work circumstances was a common response among teachers who suggested their home visits resulted in slight or temporary changes. The potential causes of limited parent involvement expressed by many of the teachers surveyed in our study mirrors the findings of a recent study (Baker, Wise, Kelley, & Skiba, 2016) that utilized both parent and teacher focus groups to investigate barriers to greater parent involvement. Similar to the present study, researchers found that many parents expressed limited involvement simply due to the fact that events were often held during the school day or did not take family weeknight schedules into account.

Over one-fourth (28.64%) of the responses suggested that teacher home visits did not cause a change in parent involvement. Several teachers suggested that perhaps the reason for no change was that parents were already involved. One teacher said, "Parents that want a home visit are usually already involved with their child's education." Several respondents noted that the nature of arranging a teacher home visit, which, at least at some campuses, requires that a parent request a teacher home visit, was a limiting factor in increasing parent involvement. One teacher commented thus, "Parents who were already involved in school were open to visits, but those less involved did not accept invitations," while another noted similarly that, "The parents that wanted home visits were the ones always involved." Table 8 provides the frequency and percent of each theme that emerged in question three.

Table 8. Themes from Open-Ended Survey Question #3 – Level of Parent Involvement

	Question #3 (n = 220*)	
	n	%
Parent Involvement Increase	113	51.36
Slight or Temporary Positive Impact	8	3.64
Parent Involvement Decrease	2	1.00
No Change/Not Helpful	63	28.64
No Data Recorded	34	15.45

Source: School System Program Records.

**Note.* Responses containing evidence of more than one theme were dual-coded resulting in an *n* that is greater than the number survey respondents.

Both quantitative and qualitative data appear to indicate that teacher home visits increased parent involvement in the school system's schools. Independent samples *t*-tests revealed statistically significantly greater numbers of parental log-ins to the school system's parent portal overall, as well as from within and outside of the system's schools. In addition, of the 220 teachers surveyed, over half (51.36%) of the responses indicated the perception that teacher home visits positively impact levels of parent involvement.

Research Question 4: What are teachers' perceptions of the impact of teacher home visits on students' attitudes and motivation?

A final question asked the system's teachers about their perceptions of the impact of teacher home visits on students' attitudes and motivation. The four themes that emerged from teacher responses regarding the impact of teacher home visits on students' attitudes and motivation were positive behavioral impact, positive affective impact, slight or temporary positive impact, and no change or not helpful in impacting students' attitudes and motivation. Slightly less than half (42.69%) of the respondents reported that teacher home visits had a positive impact on students' motivation by impacting their behavior in the classroom. Just over 15% (15.38%) reported that they noticed a positive affective impact on students' attitudes and motivation through the relationships and connections they had formed with the students and families during the teacher home visit. Less than 10% (7.7%) of the teachers reported they noticed a slight or temporary positive impact on students' attitudes and motivation after completing a teacher home visit, but these changes were minimal and not permanent. Almost one-fifth (20.77%) of the teachers surveyed said they noticed no change in students' attitudes and motivation after the student received a teacher home visit, and 13.48% of the respondents did not provide an answer. Table 9 provides the frequency and percent of each theme that emerged in question #4.

Table 9. Themes from Open-Ended Survey Question #4 – Students' Attitudes and Motivation

	Question #4 (n = 260)	
	n	%
Positive Behavioral Impact	111	42.69
Positive Affective Impact	40	15.38
Slight or Temporary Positive Impact	20	7.70
No Change/Not Helpful	54	20.77
No Data Recorded	35	13.46

Source: School System Program Records.

Note. Responses containing evidence of more than one theme were dual-coded resulting in an *n* that is greater than the number survey respondents.

Of the 260 coded responses, 111 (42.69%) noticed a positive behavioral impact on students' attitudes and motivation after these students received a teacher home visit. One teacher mentioned that, "The majority of the students seem to have a more positive attitude and increased motivation in their daily classwork performance." Additional remarks by another teacher helped to illustrate the impact of teacher home visits on students' attitudes and motivation, suggesting that students show "more focus on work and assignments." With regard to teacher home visits having a positive affective impact on students' attitudes and motivation, one teacher noted, "Motivation is increased because they are more aware of communication between parent and teacher," as well as, "they [students] feel that home–school connection and trust that [the school system] is a safe and nurturing environment for them." One teacher noted that after teacher home visits, "Students were dedicated and worked toward their goals more. The students knew that communication was necessary through home visits, conferences, email, phone, and more. The home visit created an excellent parent–teacher relationship."

Discussion

This evaluation of the school system's teacher home visit program examined both quantitative and qualitative data to determine if there were significant differences in classroom behavior, academic achievement, level of parent involvement, and attitudes and motivation of the school system's students who received a teacher home visit compared to similar students who did not receive a teacher home visit. With regard to the effects of teacher home visits on student classroom behavior, students who received a teacher home visit had significantly higher PRS, or positive reward system, scores than students who did not receive a teacher home visit ($p < .001$), with an effect size of 0.13. However, there were no statistically significant differences between the DPS scores of students who received a teacher home visit compared to students who did not receive a teacher home visit. Of the 269 responses recorded from the teacher survey, 70.25% reported that teacher home visits had a positive effect on students' classroom behavior, either behaviorally (40.15%) or affectively (30.11%), while an additional 7.06% reported a slight or temporary increase in students' positive classroom behavior.

In addition to increases in positive behavior, the school system's teacher home visit program showed significant differences in student academic achievement when compared to students who did not receive a teacher home visit. Both mathematics and English language arts second quarter grades showed a small positive effect (mathematics, Cohen's $d = 0.13$, English language arts, Cohen's

$d = 0.12$) for students who received a home visit. These results were then reinforced through the responses of the teachers in the open-ended survey, where more than half (55.02%) noted an increase in academic achievement of the students who participated in the teacher home visit program. Regarding the effects of teacher home visits on parent involvement, students who received a teacher home visit had a significantly higher number of parent portal log-ins across all three types (total log-ins, within-school log-ins, outside of school log-ins) than students who did not receive a teacher home visit ($p < .001$), with small, positive effects for each type of log-in. Finally, over half (51.36%) of the school system's teachers surveyed felt that teacher home visits increased parent involvement, with many noting that teacher home visits increased parents' level of comfort with their child's teacher. The results of the open-ended survey given to the school system's teachers suggested that the majority (58.07%) of teachers saw an increase in student motivation and improvement in students' attitudes for those that participated in the teacher home visit program.

The results of this study suggest that the school system's teacher home visit program positively impacts students' academic and behavioral functioning in school. Students who have received a teacher home visit through the school system's program had significantly higher academic achievement, as well as motivation, when compared to similar school system students who did not receive a teacher home visit. Additionally, parents whose child received a home visit were found to be more involved in their children's schooling than parents who had not received a teacher home visit. Our study findings are consistent with previous research findings and help to reinforce the positive impact home visits have been shown to have on students, parents, and schools (Meyer & Mann, 2006; Sandham, 1999; Sheldon & Jung, 2015; Stetson et al., 2012). Specifically, the study's findings contribute to and help to corroborate other research findings showing the positive impact home visits have on students' academic achievement, increased positive student behaviors, and increased parent involvement (Lin & Bates, 2010; Meyer & Mann, 2006; Meyer et al., 2011).

Stetson et al. (2012) reported results indicating home visits had been perceived by the majority of the teachers studied (75%) to impact students' classroom behavior in a positive way. The results of the current study further demonstrate this, as the majority (70.26%) of the teachers studied indicated that home visits had positively impacted students' classroom behavior. When focusing on the impact home visits had on students' academic achievement, the results of this study showed a small positive effect for mathematics and English language arts, which was echoed in the responses given by teachers indicating a positive impact on academics. These study results mirror similar results reported in previous research showing an agreement between teachers,

students, and test scores on the positive impact of home visits (Meyer & Mann, 2006; Simington, 2003). Finally, previously reported research indicated home visits positively impacted students' attitudes as indicated by teacher reflections or responses (Simington, 2003; Stetson et al., 2012), as did this current study, with over half (58.07%) of the surveyed teachers' responses indicating they saw improvement in students' attitudes after a home visit. The results from this research also showed home visits having a positive effect on parent involvement as measured by recorded log-ins to the parent portal. These results were consistent with previous research where positive impacts to parent involvement were also noted, though measured by teacher perceptions of parent impact (Meyer & Mann, 2006; Sawchuk, 2011).

These findings, however, need to be viewed with caution, as the magnitude of the differences between the two groups was not large and effect sizes cannot be soundly attributed to home visits given the inability of *t*-tests to control for demographic information. In addition, because the school system did not provide us with any prior data on dependent measures such as student achievement, behavior, or parent involvement upon which to match students, it cannot be determined whether preexisting differences between students contributed to reasons for home visit selection and/or post-visit differences in the dependent measures. Also, the general nature of the quantitative measure of parent involvement (number of log-ins to parent portal) made it impossible to distinguish parents' reasons for logging into the portal and may have provided an inflated sense of involvement in some cases. Additionally, differences in families and students due to teachers' choice of which students to visit likely resulted in group differences not detected by our measures.

Finally, the teachers that participated in the open-ended survey also reported positive benefits of the teacher home visit program. However, a low response rate among the teachers surveyed also points to interpreting teacher perceptions of home visits cautiously, as less than 20% of the teachers who completed home visits responded to the survey. In addition, due to the quasi-experimental study design and lack of data on teacher motivation, we could not determine what factored into teachers' choice of which students to visit. However, the results of this study should still be seen as encouraging for school systems interested in beginning or expanding teacher home visit programs.

Based on the findings of this study, future studies should consider other dependent measures of the impact of home visits, such as student attendance. Additionally, designing the study to allow for random assignment for which students receive a home visit could allow further insight into the potential impact these visits have on students and parents. Finally, as this study focused on a large charter school system, expanding this study to focus on schools

outside of this system, and across the United States, could allow a deeper understanding of the potential impacts of teacher home visits on students and their parents. Other expansions on this work could focus on teacher perceptions about changes in their own attitudes and beliefs regarding students and parents as a result of conducting home visits, as well as consideration of what types of incentives would encourage more parents to participate in home visits.

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