

RESEARCH BRIEF

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INVESTIGATING THE IMPACT OF SUBSTITUTE TEACHERS ON STUDENT ACHIEVEMENT: A REVIEW OF LITERATURE

Background

What is the impact of substitute teachers on student achievement? The substitute teachers are charged with creating the “best approximation of the teaching that would have taken place had the regular teacher been present” (Glatfelter 2006, p. 18). Thus, in the optimum circumstances, substitute teachers help mitigate the disruptive impact on student learning caused by the absence of their regular teacher. However, substitute teachers have to work through many challenges and uncertainties such as inadequate, unclear, or no lesson plans left by the regular teachers; not enough time to know the students’ learning styles; and limited training in classroom management. According to the sparse research and other documented evidence, while substitute teachers are able to keep students busy with work, they accomplish very little by way serious instruction and student learning.

Teacher absenteeism and the resulting employment of substitute teachers entail financial costs and an increase in educational expenditure. However, the more enduring and expensive consequences are the possible negative impact on student learning and achievement. According to some estimates, students spend an equivalent of one year with a substitute teacher in the course of K-12 education (Glatfelter 2006, p. 1). Yet, very few studies have investigated the impact of teacher absenteeism or the substitute teachers in the classroom on student achievement.

Literature Review Strategy¹

Most substitute teachers have one-day, or fairly short-term, assignments and their impact cannot be measured by student achievement on standardized tests. This literature review has identified three types of studies to assess substitute teachers’ impact on student achievement or effectiveness in the classroom:

1. *Impact of teacher absenteeism on student achievement:* A few studies have examined the impact of teacher absenteeism on student achievement or the school’s success. This literature review will look at those studies as they

¹ This is a partial literature review and does not exhaustively include all published studies about the impact of teacher absenteeism and substitute teachers on student learning and achievement.

- indirectly reflect on the use of substitute teachers when teachers are absent from their regular teaching day.
2. *Impact of substitute teachers on student achievement:* Studies have explored the direct impact of substitute teachers on student achievement.
 3. *Opinion Studies about the effectiveness of substitute teachers:* Studies have explored the opinions of students, regular teachers, substitute teachers, and principals regarding the effectiveness of substitute teachers.

Highlights of Research Findings

Impact of Teacher Absenteeism on Student Achievement

Two recently published studies have demonstrated that teacher absenteeism has a negative impact on student achievement. A Harvard study by Miller et al (2007) analyzed the absences of 2,500 teachers in an urban school district over a three-year period. The study found that over half the sick days were “discretionary” and occurred on Mondays or Fridays. The researchers found a small but significant impact of teacher absences on student math scores after taking away the effects of school, student, and teacher, including teacher skill and motivation. Clotfelter et al (2007), in a study that examined the frequency and consequences of teacher absenteeism in North Carolina based on seven-year data, found that teacher absentee rates are greater in schools serving low-income students. Most importantly, the study showed that teacher absences negatively impacted student test scores in elementary schools. The researchers’ estimates suggested that increasing teachers’ base salary along with raising the financial penalty for absences may help reduce absenteeism as well as lower the districts’ costs.

Woods and Montagno (1997), in a study conducted in two school districts, systematically explored the relationship between teacher absenteeism and student achievement. They examined the change in the student scores on ITBS between the third and fourth grades and related those to teacher absences categorized in three groups - 0-4, 4.5-11, and 11.5-29 days absent. While the students in the low teacher absence group made a grade equivalent progress, those with the teachers with higher absences showed significantly smaller growth. The authors also looked at teacher absences and the students’ percentile ranking change on ITBS between the 3rd and 4th grades. They found that the students from low teacher absence group had a positive gain whereas those with high absence teachers experienced a decline in their percentile ranking. The authors argued that “when a qualified educator is absent from the classroom, student achievement is negatively affected.” The researchers found that principal ratings of the teachers were not predictive of student performance but teacher absences were. Interestingly, Woods and Montagno made these findings in two districts located as far apart as Wyoming and Indiana, increasing the confidence in the findings.

Manlove and Elliot (1977), in one of the early studies of the impact of teacher absenteeism, reported that “the overall performance of a school was negatively affected by high teacher absenteeism.” (Quoted in Woods and Montagno 1997, p. 309). They found that schools’ performance on several academic and administrative dimensions declined with increased teacher absenteeism.

These studies confirm the general belief among the educators and administrators that teacher absenteeism has a negative impact on student achievement. They also imply that the substitutes that temporarily take the place of the qualified teachers cannot fully compensate for the disruption in the normal education processes in the classroom.

Impact of Substitute Teachers on Student Achievement

There is evidence suggesting that substitutes may negatively impact student learning. In one study, *Orlando Sentinel* examined the relationship between student performance on standardized tests and substitute teaching (Associated Press 2004, quoted in Glatfelter 2006, p.10). The study, conducted in 62 Orange County, Florida, schools, compared students who spent varying degrees of classroom time with the substitutes in terms of their English, language arts, and reading scores. The study found that the students “who spent four or more weeks with a substitute teacher scored 11 points lower on the reading portion of the Florida Comprehensive Assessment Test than their peers in the same schools.”

Two prominent reports, one by the New York State Office of Education Performance Review (1974) and another by a Pennsylvania school board (1978) stated that substitute teachers were significantly less effective compared to the regular teachers in the classroom (Referenced in Woods and Montagno 1997, p. 308-309).

Opinion Studies about the Effectiveness of Substitute Teachers

Studies investigating the opinions of teachers, students, substitute teachers, and administrators have reported that the regular teachers and administrators have limited confidence in the ability of the substitute teachers to accomplish quality teaching and learning in the classroom. Many studies strongly recommended substantive training for the substitutes to achieve better student outcomes.

In his doctoral dissertation submitted to UCLA, Glatfelter tackled the issue of improving the substitute teacher’s effectiveness in the classroom. The purpose of the study was “to learn the best methods for supporting substitute teachers as effective classroom instructors through a careful analysis of the points of view of administrators, classroom teachers, and substitute teachers themselves” (p. 8-9). This study examined the perceptions of substitute teachers, permanent teachers, and school administrators about professional development for substitute teachers. The teachers reported that they did not think the substitutes could teach the curriculum effectively, and that the substitutes were not competent with teaching strategies or classroom management. The substitutes did not think they did a good job but showed eagerness to learn. Glatfelter reported that the

regular as well substitute teachers in his study emphasized that substitutes should receive training in the school district's standards, math/reading curriculum, teaching strategies, and classroom management. Glatfelter's case for training the substitute teachers is consistent with the study findings about the efficacy of training regular teachers. These studies have suggested that training rather than educational background or experience of permanent teachers plays a key role in their success (2006; p. 19).

A study, conducted in a small rural school district, reported similar findings regarding attitudes and perceptions about the effectiveness of substitute teachers. The study examined teacher, student, and substitute teacher opinions and attitudes regarding substitute teachers (Patterson 2006). Specifically, the researcher explored opinions on questions dealing with regular teachers' as well as substitute teachers' confidence in the abilities of the substitutes and student behavior when substitutes are in the classroom. The study found that while the regular teachers were confident that the substitutes follow the lesson plan, they doubted the substitutes' ability to "present content" or maintain a satisfactory level of classroom discipline. The substitutes, on the other hand, reported that they were capable of teaching as well as maintaining discipline. Regular teachers believed that substitutes could benefit from training in instruction and classroom management.

Another study examined opinions and perceptions of 165 permanent K-12 teachers in a school district in Maury County, Tennessee, regarding performance and training of substitute teachers (Smith 2006). Permanent teachers responded to ten items on a Likert scale and three opinion questions. The study found small but statistically significant difference in the responses from three groups – elementary, middle, and high school teachers. Elementary teachers expressed more confidence in substitute teachers compared to middle and high school teachers. Teachers from all levels agreed, although with varying degree, that substitutes would benefit from training.

Discussion

Some of the recurrent themes found in the literature about teacher absenteeism, substitute teachers, and student achievement are as follows:

1. Permanent teachers are important and their absence has a negative impact on student achievement.
2. Teacher absences have a significant, direct budgetary impact as school districts have to engage substitute teachers to temporarily take the place of regular teachers.
3. Substitute teachers have to deal with many challenges: 1. Time too short to learn the students' learning style to meet their needs; 2. Unclear, inadequate, or missing lesson plans; 3. General low expectation by teachers, administrators, and students; 4. Insufficient training in instruction or classroom management.
4. One study described the belief in substitute incompetence as "a self-fulfilling prophesy." Teachers tend to leave disengaging work for the substitute which diminishes their role, making them less effective.
5. The work left for the substitute teacher is "busy work" that may involve continuation and completion of previous work. Thus the time is not used very effectively.
6. The regular teachers may hesitate to assign serious work to the substitutes because of a lack of interaction or information exchange between the regular teacher and the substitute teacher, and the teacher not knowing the substitute's credentials.
7. The district and/or state sick and personal leave policies strongly impact teacher absenteeism.
8. Students in at-risk, low-income schools spend more time with substitutes than their counterparts in other schools in the district.
9. There is evidence that training improves substitute teachers' effectiveness in the classroom.

Recommendations

Studies examining the substitute teachers' impact in the classroom often discussed strategies for improving their effectiveness. These are some of the recommendations that emerged in the review of literature.

1. Substitute teachers should receive training in standards, instruction, content areas as well classroom management.

2. Beyond the traditional methods of training - classes and workshops - administrators should consider other methods of training substitute teachers: classroom observations, mentoring, networking, and attending professional development that regular teachers attend.
3. There should be a better information exchange between the regular and substitute teachers. The regular teacher should know the credentials of the substitute and provide clearer instructions for the substitute enabling him/her to become effective in the classroom.
4. Establishing a personal relationship between regular and substitute teachers will help improve perceptions about the substitutes' efficacy and lead to more effective use of substitutes in the classroom.

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