

Title: Quality Teacher Impact on Learning in a Juvenile Correctional Facility

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Abstract

Quality Teacher Impact on Learning in a Juvenile Correctional Facility

The purpose of this study was to determine teacher impact upon student learning at a correctional facility for adolescent boys. Improving teacher quality is directly related to the ability to produce higher levels of learning for K-12 students. Providing confirmation that teachers in correctional facilities can facilitate the learning of all students is an integral part of program evaluation. This study involved approximately 45 adolescent boys in a juvenile correctional facility education program. The instruments used in this quantitative and qualitative study were a Teacher Impact Upon Student Learning Project and a semi-structured Teacher Interviews. The Teacher Impact Upon Student Learning Project involved students being given pre and post-tests in nine different subject areas to determine academic growth. The Pearson Correlation was run and it was determined that in all cases there was a correlation between instruction and learning and in most instances there was a strong correlation, significant at the .01 level. The Teacher Interviews found all teachers to either exhibit exemplary performance or expected performance which indicates quality teachers. The results of this study show that quality teachers make a positive academic impact on students in a correctional facility.

Quality Teacher Impact on Learning in a Juvenile Correctional Facility

The facts are disconcerting, but not surprising, between 87% and 92% of low-income students are not proficient in reading (National Assessment of Educational Progress, 2000). Third graders growing up in low-income communities are three grade levels behind their peers in high-income communities (Teach for America, 2006). One-third of Latino students perform below grade level, leading to drop out rates of a staggering 50% to 98% (U.S. Senate HELP Committee, 2002). These unsettling statistics are a sampling of the disturbing achievement gap between minority and low-income students and their Caucasian, middle-class counterparts.

The academic achievement statistics are particularly grim in juvenile correctional facilities, where nearly sixty percent of adolescents are from minorities and the majority of individuals have repeated a grade in school. The average reading level for adolescent offenders is between third and seventh grade and the average math scores are at the sixth grade level (Foley, 2001). According to the latest US Department of Education, Office of Special Education Programs' annual survey, less than 1% of the students in our K-12 public schools are identified as having emotional disorders. The percentage is alarmingly high in correctional facilities with 42% of the population being identified as emotionally disturbed (Baltodano, Harris, & Rutherford, 2005). Ensuring academic proficiency is a challenge to teachers and administrators at these sites.

In response to the demand for students to achieve at high levels and to decrease the achievement gap researchers have attempted to identify critical indicators for academic achievement. A ground-breaking study conducted by Rivkin, Hanushek, and Kain (1998) analyzed 400,000 students in comparison to class size, teacher education, teacher experience, and school quality and found teacher quality as the most significant factor in academic achievement. Subsequent studies confirmed their findings; teacher quality is the single most important school-related indicator of student learning (Mayer, Mullens, & Moore, 2001). Teacher quality generates dramatic differences in academic success as evidenced by research that shows a quality

teacher can facilitate an entire grade-level of student achievement growth when compared with a bad teacher (Hanushek, 1992).

A quality teacher has been defined as individuals that possess a solid foundation in pedagogy and the content area he or she teaches. The enactment of the No Child Left Behind act (NCLB), for all its shortcomings, provided the impetus for educators to take a closer look at student outcomes. This Federal legislation specified 'highly qualified' teachers as vital to student achievement. NCLB (U.S. Department of Education, 2002) articulates highly qualified as one who has obtained a bachelor's degree, has full state certification, and has demonstrated competency in each core academic area taught.

Sanders and Rivers (1996) believe that quality teaching is particularly important for lower achieving students. Unfortunately, students living in poverty and students of color are more likely to be taught by unqualified teachers. Approximately half of public schools serving minority children are filling full time positions with unprepared substitutes. In fact, poor high school students are twice as likely as their affluent peers to be taught core subjects by teachers that are not certified in that academic area.

The Renaissance Partnership for Improving Teacher Quality (2006) is in its' third year of a five year Title I grant. The goal of this project is for eleven pre-service education programs and their public school partners to design and implement an accountability system that involves student teachers' impact on P-12 student learning.

The Renaissance Group has initiated an extensive plan for system assessment. A portion of their plan involves collecting teacher work samples. Teacher work samples are lesson plans that evidence student learning and substantiate pre-service teachers' abilities to design, implement, assess and reflect on their student's learning during a unit. The Renaissance Group's work was modified for this study.

Purpose of the Study

The purpose of this study was to determine teacher impact upon student learning at a correctional facility for adolescent boys. Improving teacher quality is directly related to the ability to produce higher levels of learning for K-12 students. Providing confirmation that teachers in correctional facilities can facilitate the learning of all students is an integral part of program evaluation. Methodology

The study took place at a correctional facility for adolescent boys in the Midwest. It included five secondary education teachers and approximately 45 secondary education students. Many, if not all, of the students had experienced school failure. The majority of students were behind their appropriate grade level academically. Reading levels ranged from first grade to twelfth grade. The number of boys on Individual Education Plans (IEPs) varied at the program, but the average was 50%. A disproportionate number were poor and from a minority and all qualified for Title I funding.

Students received an education focused on the core curriculum of language arts, reading, math, social studies, and science at the facility. In addition, life skills and anger management classes were a significant part of the education program. Drug counseling was provided for those in need. Those willing to participate in the study signed a form for consent and confidentiality was assured.

The instruments used in this study were a Teacher Impact Upon Student Learning Project and semi-structured Teacher Interviews. All were modified from the Renaissance Partnership for Improving Teacher Quality.

The data collection procedures were conducted in two phases. The Teacher Impact on Student Learning Project included an outline for unit of study (objectives, standards alignment, assessment of objectives, materials, and instructional groupings and strategies). Teachers developed ten day units following the structure of the Teacher Impact on Student Learning Project. Each project included a pre-test/posttest. A pre-test/posttest design is a common tool in evaluating programs.

The semi-structured teacher interviews were conducted at the conclusion of the project.

Each teacher was individually interviewed for 30–60 minutes. Five questions structured the interview; they focused on reflection of their assessments, teaching strategies, and student learning.

Findings

Insert TABLE 1 Statistics for Each Subject Area

Table 1 reports student scores from each pre and post-test. Most students showed academic growth between the pre and post-test. A Pearson Correlation was calculated examining the relationship between instruction and student learning in the subject areas. A strong correlation was found in subtraction, multiplication, division, addition, and writing. A moderate correlation was found in geometry, civics, vocabulary, and geography.

Using the t-test, 6 of the 9 cases showed significant gains due to instruction at the 0.01 level (civics, geography, geometry, writing, multiplication, and division), two other cases were significant at the 0.05 level (vocabulary and subtraction), and the third was significant at the 0.10 level (addition) (at the 0.05 level if the one-tailed hypothesis argument is used).

Teacher Interviews

The majority of teachers chose their pre-assessment on the basis of objectivity; they desired a test that clearly proved academic growth. One teacher stated that she also believed that students had a “comfort level” with this type of test.

The majority of teachers chose relatively short tests (approximately 10 items), because they didn’t want to “overwhelm them.” The general consensus was that students in correctional facilities had negative experiences with testing and a short test would aid in reducing their anxiety. The content of the pre-assessment usually reflected information that teachers believed was essential to their knowledge base and all aligned with Minnesota State Standards.

All teachers chose the same format for the posttest as the pre-test. If the pre-test was multiple choice or essay, they chose that same format for the posttest. The majority of teachers used the same actual test for the pre and posttest, the one exception was the teacher that tested writing skills. A different debate topic was chosen for the posttest. The reason the teachers stated for choosing the same test for pre and posttest was to ensure “consistency” and to make “direct comparisons.”

Most teachers used the results to inform their instruction as evidenced in the following statements: “I had planned a higher level, needed to take it to a level the majority would understand,” “it told me how to group and what assignments to give” and “showed no concepts of concluding sentences and the majority couldn’t write supporting sentences, so needed examples of sentence and paragraphs, they needed graphic organizers to organize their thoughts.”

Results from the pre-assessment did not impact two of the teacher’s future plans. One stated, “Not really, I took it as a benchmark.” and the other remarked, “I had in mind what I was going to do already.”

The vast majority of students were able to exhibit greater understanding of the material on the posttest than on the pretest. This showed that teacher instruction in the content area was impacting student learning. Teachers determined that student’s had met the learning objectives by comparing the number correct on the pre-test with the number correct on the posttest. They also looked at the percentage correct on the pre-test and compared that with the percentage correct on the posttest. In general, 80% correct was considered to be proficient.

All teachers did a respectable job of reflecting on future teaching of their subject areas and offered meaningful changes to future teaching of the content. The following are quotes that support this finding: “I would have students set their own goals after the pre-test. I would

make it more of an applied math with real world situations and problems.”I would put more writing in it and incorporate it into a story. The grade levels are all over, this makes it difficult for the kids that are having an easy time. I’d make a poster of words for one or two boys that are having difficulty. I wish I’d known one boy’s learning style before we started, I would have worked with him individually from the beginning.”I would design my own test that would have a writing component so better assessment of what they know.”

Conclusion

Results of this study confirm that quality teachers in correctional facilities positively impact student learning. These findings are validating to those involved in correctional facility education programs, where it is often difficult to measure student progress due to constant student turnover. Standardized state tests, the current assessment of choice, have diminished meaning establishing student growth or system quality in correctional facilities because the majority of students are not in the program for a full school year.

The importance of using assessment as a way to make good decisions needs to be continually reinforced. There is a national trend of using testing to simply divide and separate, and it is easy for teachers to fall prey to this way of thinking. There is also the tendency for teachers to feel overwhelmed and therefore omit this part of the process.

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TABLE 1 Statistics for Each Subject Area

				Paired Differences					
	n	Mean Pre test	Mean Post test	Mean	Std. Dev	Lower	Upper	t	t test
Vocabulary	12	4.50	6.75	2.25	3.137	0.26	4.24	2.48	0.03033
Civics	9	9.67	15.76	5.89	2.205	4.19	7.58	8.01	0.00004
Geography	19	26.95	43.47	16.53	13.129	10.20	22.85	5.49	0.00003
Geometry	19	19.53	25.84	6.32	6.047	3.40	9.23	4.55	0.00025
Writing	23	2.35	3.57	1.22	0.671	0.93	1.51	8.70	0.00000
Addition	9	23.44	26.67	3.22	4.893	-0.54	6.98	1.98	0.08363
Subtraction	9	15.22	18.78	3.56	4.613	0.01	7.10	2.31	0.04950
Multiplication	9	14.78	23.78	9.00	5.568	4.72	13.28	4.8	0.0012
Division	9	13.33	20.44	7.11	4.400	3.73	10.49	4.85	0.00127