AN EVALUATION OF THE SOUTH CAROLINA 21ST CENTURY LEARNING CENTER PROGRAM

VOLUME I

PREPARED FOR THE SOUTH CAROLINA DEPARTMENT OF EDUCATION

BY

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April 17, 2007

EXECUTIVE SUMMARY

Introduction

This report summarizes the first of five annual evaluations of the South Carolina 21st Century Community Learning Center (21st CCLC) Program. There are two purposes for these evaluations. These purposes are:

- To determine if the South Carolina 21st CCLC conformed to the Federal 21st CCLC Federal objectives and performance measures.
- To conduct an in-depth evaluation of the state-wide South Carolina 21st CCLC. This evaluation will determine, over time, what methods, program elements, interventions and other attributes contribute in what manner and to what extent to successful student outcomes. Each of the five annual evaluation reports will examine this issue for the programs that were first funded three years prior to the year of the report. These evaluations will also compare changes in the PACT scores of students who are in the programs in their third year of funding with changes in the PACT scores of children in the same schools who are not in the programs.

Summary of South Carolina's Approach to 21st CCLC Evaluation

System Wide Solutions, a research and consulting firm based in Columbia, SC, has a five year contract with the SC SDE to evaluate the 21st CCLC. SWS has three overall responsibilities regarding the South Carolina 21st CCLC program. These are: development and maintenance of a management information system to hold evaluation data; provision of methods and training for local program evaluations; and the design and conduct of the statewide evaluation.

Grant Evaluation Management System (GEMS): To meet its first responsibility, SWS is utilizing an SWS proprietary product, the Grantee Evaluation Management System (GEMS). The GEMS is designed to provide comprehensive data management of federal grants, particularly those for youth programs. The GEMS is a web-based live database utilized by all SC 21st CCLC programs and sites. This comprehensive management information system serves several purposes. All student, site and program level data associated with the 21st CCLC program, with the exception of financial data, is entered into the GEMS by programs and sites except for individual PACT scores, discipline referrals and attendance, which are provided electronically by SDE and entered into the system by SWS. All reporting to PPICS and the state 21st CCLC office is done from GEMS. GEMS contains the data from the teachers survey and, beginning in 2007, student and parent surveys. These surveys are completed on scannable forms and results are scanned directly into the GEMS. In addition, the data management system provides the formatted program level evaluations for each local program and site, as described below. All of the quantitative data necessary for the statewide evaluation is found in GEMS

Local Program Evaluations: The second responsibility of SWS is to work with the local programs to assist them in producing their own local evaluations. Built into the GEMS is the

capability of data and templates for producing summary information for evaluations, and programs are being trained on making use of these resources as part of their GEMS training.

Statewide Evaluation: The statewide evaluation is a five-year-long process. The evaluation has two purposes. These purposes are:

- To determine if the South Carolina 21st CCLC conformed to the Federal 21st CCLC Federal objectives and performance measures.
- To conduct an in-depth evaluation of the state-wide South Carolina 21st CCLC. This evaluation will determine, over time, what methods, program elements, interventions and other attributes contribute in what manner and to what extent to successful student outcomes. Each of the five annual evaluation reports will examine this issue for the programs that were first funded three years prior to the year of the report. These evaluations will also compare changes in the PACT scores of students who attend the programs that are in their third year of funding with changes in the PACT scores of children in the same schools who do not attend these programs.

Description of the Statewide Evaluation

To determine if the South Carolina 21st CCLC conformed to the Federal 21st CCLC Federal objectives and performance measures, data was gathered on all of the active 21st CCLC programs from the South Carolina Department of Education and the Learning Point database. This data was entered into a database, analyzed and findings and conclusions reached.

The remainder of the 2005-2006 evaluation was conducted on the 35 active programs that were first funded during school years 2002-2003 and 2003-2004. These programs operated 92 sites during the 2005-2006 school year. Of these 92 sites, 71 were visited by the evaluation team to gather qualitative information about the program. All of the programs were asked to provide quantitative data from their sites. Of the 92 sites, 68 provided valid student-level data. Wherever the site visit data and the student-level data coincided, both sets of data were used. The SC Department of Education also provided student-level data. Program and site level data was obtained from the PPICS system maintained by Learning Point.

The basic method used for this part of the evaluation was to determine what variables, such as specific activities or use of volunteers, had a significant, measurable affect on the outcomes for students in the program.

The student outcomes that were measured for the evaluation were:

- English Language Arts, Mathematics, Science and Social Studies PACT scores
- Mathematics, English language arts, reading and science classroom grades
- Classroom teachers' perception of how well the student was doing in the class at the end of the year compared to the beginning of the year
- Regular school attendance
- Discipline referrals

The demographic variables that were measured were:

- Grade level

- Gender
- Ethnicity
- Free/reduced lunch status
- Special needs designation
- Limited English Proficiency designation
- School size
- Whether the school is rural or urban
- Sponsoring organization type
- Whether or not the school is designated as Title I

The individual variables that were examined to determine what affect they had on outcomes were:

- The type of leadership role the site coordinator used
- The effectiveness of the site coordinator's leadership
- The support of parents for the program
- The hours of computer use available
- The amount and variety of enrichment available
- The behavior management method used by the site
- If the site built group identity
- If the site used intrinsic rewards
- If the site provided character education
- The effectiveness of behavior management
- If the site provided physical activity
- How the classroom activities were organized
- The program approach used by the site
- The type of curriculum(a) used by the site
- The teaching method predominate at the site
- The degree and kind of school involvement with the site
- The certification status of the teachers
- The experience of the staff
- The morale of the staff
- Whether the site was also operating another program
- Number of Hours of operation during school year
- Total hours of summer programming
- Total yearly hours of programming
- Number of adults served
- Funding per site
- Number of additional funding sources
- Sum of the estimated monetary value of contributions from partners
- Number of partners contributing programming or activity related services
- Number of partners contributing paid staffing
- Number of partners contributing volunteers
- Number of partners contributing goods/materials
- Number of partners contributing evaluation services
- Number of partners contributing funding

- Percent of available program time that students are present
- The number of days students were present in the program broken down by Learning Point categories (fewer than 30 days, 30 to 59 days, etc.)

Findings of the Evaluation

Achievement of the Federal Objective and Performance Measures among 21st CCLC Programs

Objective 1: Participants in 21st CCLC programs will demonstrate educational and social benefits and exhibit positive behavioral changes.

1.1 Achievement Outcomes: Increasing percentages of students regularly participating in the program will meet or exceed state and local academic achievement standards in reading and mathematics.

The state standard was measured using the PACT scores of the students who attended 21st CCLC programs thirty or more days during the school year. The percentage of these regular participants who met or exceeded the state standard in English and Language Arts (reading) increased by almost 5% during the year. The SC 21st CCLC program therefore met this portion of the objective for the 2005-2006 school year. The percentage of regular participants who met or exceeded the state standard in mathematics decreased by 2.6% during the same period. The SC 21st CCLC program therefore did not meet this portion of the objective for the 2005-2006 school year.

The local academic standard was measured using grades of the students who attended 21st CCLC programs thirty or more days during the school year. There was no change in the ELA grades among students between the first and last reporting periods for the school year. The SC 21st CCLC program therefore did not meet this portion of the objective for the 2005-2006 school year. There was an increase in math grades of 9.5% among regular participants between the first and last reporting period. The SC 21st CCLC program therefore met this portion of the objective for the 2005-2006 school year.

1.2 Behavior Outcomes: Students participating in the program will show improvements on measures such as school attendance, classroom performance, and decreased disciplinary actions or other adverse behaviors.

Absences and referral data were available for fewer than half of the program participants. Therefore, conclusions could not be drawn regarding this performance measure.

Classroom performance was measured through a survey of the 21st CCLC students' classroom teachers. The teachers generally reported improvement among the students on ten different scales. There was particular improvement reported in academic areas. Teachers reported that:

- 64.4% of students improved in turning in homework
- 67.8% improved in completing their homework to the teacher's satisfaction

- 69.2% improved their class participation
- 62.5 % were more attentive in class
- 67.2% improved their academic performance
- 55.9% improved coming to class prepared to learn
- 54.7% improved on volunteering
- 48.3% improved on behaving well
- 47.5% improved in getting along with others
- 37.6% improved on attending regularly

Objective 2: 21st CCLC programs will offer a range of high-quality educational, developmental, and recreational services.

Objective 2.1 Core educational services: More than 85 percent of centers will offer high quality services in at least one core academic area, e.g., reading and literacy, mathematics, and science.

Eighty-one percent of the sites offered services in one or more of the core academic areas. Therefore, the South Carolina 21st CCLC program did not quite meet this objective during the 2005-2006 school year.

Objective 2.2 Enrichment and support activities: More than 85 percent of centers will offer enrichment and support activities such as nutrition and health, art, music, technology, and recreation.

Eighty-seven percent of the programs reported that they offered one or more of the listed enrichment and support services. The South Carolina 21st CCLC program therefore exceeded the standard of 85% during the 2005-2006 school year.

Objective 2.3 Community involvement: Centers will establish and maintain partnerships within the community to increase levels of community collaboration.

Eighty-six out of 90 programs (95.5%) and 186 out of 192 sites (96.9%) listed active community partners. There are 491 total active partners listed by all the programs and sites. There is an average of 5.71 partners per program and 2.64 partners per site. During the 2005-2006 school year, of the 491 active partners, 62 had been active for two years or more, 312 had been active for about one year, and 117 had been active for less than one year. The South Carolina 21st CCLC has therefore met this objective for the 2005-2006 school year.

Objective 2.4 Services to parents and other adult community members. More than 85 percent of centers will offer services to parents, senior citizens, and other adult community members.

Of the 192 sites, 105 sites reported serving adults during the 2005-2006 school year. Since the 105 sites are just 54.6% of the 192 sites, the South Carolina 21st CCLC program did not meet this objective for the 2005-2006 school year.

Objective 2.5 Extended hours. More than 75 percent of centers will offer services at least 15 hours a week on average and provide services when school is not in session, during the summer, and holidays.

One hundred and seven out of 192 sites offered at least 15 hours of service when school was not in session (either before school, after school, or during the summer). These 107 sites constitute 55.7% of the total number of sites. Therefore the South Carolina 21st CCLC program did not met this objective during the 2005-2006 school year.

Objective 3: 21st CCLC programs will serve children and community members with the greatest needs for expanded learning opportunities.

For the purpose of determining need, a total of 198 feeder schools (95.7%) out of 207 feeder schools meet both Title I and free or reduced lunch criteria. Hence, the centers exceed the objective related to high-need communities.

In-Depth Evaluation

Comparison of PACT Scores of 21st CCLC Students and Other Students from the Same Schools

On two of the four PACT tests, the students in the 21st CCLC outperformed the general student population. On the English Language Arts and Science PACT tests, the 21st CCLC students and other students scores both decreased equally. On the Math PACT scores, the 21st CCLC students remained about the same as they were in the previous year, while the other students' scores decreased. The scores of both groups decreased on the Social Studies PACT, but the scores of the 21st Century students decreased less than those of the other students.

Overall Changes in Student Outcomes in the 35 Programs Examined

***PACT Scores*:** The average Social Studies PACT score decreased significantly from 2005 to 2006. There were no significant differences in ELA, Math, or Science PACT scores between 2005 and 2006.

***Absences*:** The average number of absences increased significantly from the 2004-2005 school year to the 2005-2006 school year.

Discipline Referrals: The average number of discipline referrals increased significantly from the 2004-2005 school year to the 2005-2006 school year.

***Grades*:** Students' average ELA grade increased significantly from the first to the last grading period. Students' average math grade decreased significantly from the first to the last grading period. Students' average science grade increased significantly from the first to the last grading period.

***Classroom Performance*:** Students have significantly improved their classroom performance.

Significant Factors in Determining Student Outcomes

Introduction

During the analysis, it was discovered that certain variables identified in the site visits are associated in creating effects on outcomes. These variables are so closely associated that they can not be separated for practical purposes. These groupings accounted for most of the variation in student outcomes.

These kinds of groupings are called factors, and three factors were identified. One was more powerful than the others, and is identified as the Primary Factor in the report. The other two are identified as sub-factors. The 71 21st CCLC sites that were visited clustered into three types for each of the three factors.

Description of the Site Policy Factor

The most significant factor, the Primary Factor, in determining student outcomes combined "leadership role," "enrichment," and "program approach." The leadership role variable represents a continuum from the site coordinator being rated as a community organizer if they stress bringing in community resources or promote students to do service learning, volunteer work, etc. to the site coordinator being rated as an educator if he or she largely emphasizes academic instruction. The enrichment variable represents the amount and variety of enrichment activities. The program approach variable represents a continuum from the program being rated as holistic if it develops social, emotional, physical and cognitive areas to the program being rated as pedagogical if the program's efforts focus primarily on academic instruction. The common thread identified in these variables is their relation to policy decisions made by the planners of the program regarding what the focus of the program would be. Therefore, this component was named the "Site Policy" Factor.

The sites in the Site Policy Factor cluster into three groups. In one group the leaders invite broad involvement from the community or promote service learning and volunteer work; the sites have a larger number and greater variety of enrichment activities than sites in other clusters; and the sites use a more holistic program approach, attempting to develop the students' social, emotional, physical and cognitive areas. This cluster of 12 sites was named the Child Development Cluster.

In the second group, the leaders are both community- and academically-oriented; the sites have about the average number and variety of enrichment activities; and the sites use a mix of both the academic and holistic approaches. This second cluster of 34 sites was named the Mixed Cluster. In the third group, the leaders are largely focused on academics; the sites have the fewest number and variety of enrichment activities; and the sites are focused mostly on developing the students' academic skills. This third cluster of 21 sites was named the Pedagogical Cluster.

Influence of the Site Policy Factor

***PACT Scores*:** The average ELA PACT score for students in sites with a child development policy approach decreased, while the average ELA PACT score for students in sites with pedagogical and mixed approaches increased. The average Social Studies PACT score for students in sites with a child development policy approach increased, while the average Social Studies PACT score for students in sites with a pedagogical policy approach decreased. There were no significant differences between 2005 and 2006 Math and Science PACT Scores within any of the clusters of the Site Policy factor.

***Absences*:** The absences for students in sites with a pedagogical policy approach decreased, while the absences for students in sites with a child development policy or mixed approach increased.

***Referrals*:** The increase in referrals for students in sites with a mixed policy approach is significantly higher than the increase for students in sites with a pedagogical policy approach

Grades: ELA grades for students in sites with a mixed approach decreased, whereas the ELA grades for students in sites with a pedagogical policy approach increased. The average differences in math and science grades are not significantly different among the three clusters.

***Classroom Performance*:** The average improvement in classroom performance of students in sites with a pedagogical policy is significantly greater than that of students in sites with a child development policy approach or mixed approach.

Description of the Internal Environment Sub-Factor

The second factor important to determining student outcomes that was identified includes the variables "adjustment to the learning environment," "effectiveness of behavior management," "school involvement," "staff experience" and "staff morale". The adjustment to the learning environment variable represents the formal efforts made by the staff and their success in promoting positive student attitudes toward school and learning. The "effectiveness of behavior management" variable represents the effectiveness as perceived by parents, staff, students, and the evaluation team of the behavior management program at the site. The "school involvement" variable represents the extent to which the program receives support from the school administrators and has access to the school's resources. The "staff experience" variable represents the length of time staff have worked with the program. The "staff morale" variable represents the perceived morale (i.e. energy level and attitudes) of the program staff. The common thread connecting these variables is their relation to the atmosphere and working relationships of the program's stakeholders. Therefore, this component was named the "Internal Environment" factor.

This factor also divides into three clusters. The first cluster, which only has two members, was named the Deprived Cluster. These programs do not attempt to promote positive student attitudes toward school and learning and/or are not successful at doing so. The sites are only somewhat effective at managing behavior. The sites have only limited support from the feeder school. Almost all of the staff at the sites were new in the study year. Most of the staff at these sites had negative or hopeless attitudes.

The second cluster, which has 26 members was named the Average Cluster. These programs' attempts to promote positive student attitudes toward school and learning are somewhat

successful. The sites are fairly effective at managing behavior. The sites have an average amount of support from the feeder schools. The staff are only slightly more experienced than new. Many of the staff have positive attitudes, with only a few having negative attitudes.
The third cluster, which has 32 members, was named the Positive Cluster. These programs consciously attempt to promote positive student attitudes toward school and learning and are successful at doing so. The sites are effective at managing behavior. The sites have a good amount of support from the feeder schools. There are more experienced staff than new staff. The majority of staff have high energy and positive attitudes.

Influence of the Internal Environment Sub-Factor

PACT Scores: The average Math PACT score for students in sites with a deprived internal environment decreased, while the average Math PACT score for students in sites with average and positive internal environments increased. The average Social Studies PACT score for students in sites with an average internal environment increased, while the average Social Studies PACT score for students in sites with a positive or deprived internal environment decreased. There were no significant differences between 2005 and 2006 ELA and Science PACT Scores within any of the three clusters of the Internal Environment sub-factor.

Absences: The absences for students in sites with an average internal environment remained about the same, whereas the absences for students in sites with a positive or deprived internal environment increased.

Referrals: The increase in referrals for students in sites with a deprived internal environment is significantly higher than the increase for students in sites with a positive or average internal environment.

Grades: The average differences in ELA, math, and science grades are not significantly different among any of the clusters of the Internal Environment sub-factor.

Classroom Performance: The average improvement of students in sites with a deprived internal environment is significantly greater than that of students in sites with an average or positive internal environment. It must be noted that the number of students in sites with a deprived internal environment is much smaller than the number of students in sites with a positive or average internal environment.

Description of the Activity/Subject Area Sub-Factor

The final sub-factor important to determining student outcomes that was identified includes the variables "reading/writing," "mathematics," "science," "arts/music," "cultural activities/social studies," "health/nutrition," and "other enrichment." This component was named the "Activity Subject Area" sub-factor.

The sites in the Activity Subject Area Sub-Factor again clustered into three groups. The first cluster, which has 19 members, was named the Language Arts and Math Cluster. Forty-six percent of the activities provided by these sites are in reading and writing, with 43% of the activities provided by these sites being in mathematics. These sites only provide minimal amounts of other activities, including science (4% of the activities provided), arts and music (3%

of the activities provided), cultural activities/social studies (1% of the activities provided), and health/nutrition (1% of the activities provided).

The second cluster, which has 20 members, was named the Enrichment Cluster. Forty-one percent of the activities provided by these sites are other enrichment activities, with 11% of the activities provided by these sites being in arts and music. Thirteen percent of the activities provided by these sites are in health or nutrition, 13% in reading and writing, 12% in mathematics, 4% in science and 2% in cultural activities/social studies.

The third cluster, which has 55 members, was named the Mixed Cluster. Sites in this cluster provided a mix of all activities, with averages of 22% in reading/writing, 17% in mathematics, 13% in science, 8% in arts and music, 14% in cultural activities/social studies, 10% in health/nutrition, and 10% in other enrichment activities.

Influence of the Activity/Subject Area Sub-Factor

PACT Scores: The average ELA PACT score for students in sites with a focus on ELA and math increased, while the average ELA PACT score for students in sites with a focus on enrichment decreased. The average Social Studies PACT score for students in sites with a focus on enrichment decreased, while the average Social Studies PACT score for students in sites with mixed activity subject areas remained about the same. There were no significant differences between 2005 and 2006 Math and Science PACT Scores within any cluster of the Activity Subject Area sub-factor.

Absences: The absences outcome for students in sites with a focus on ELA and math is significantly better than the absences outcome for students in sites with mixed activity subject areas.

Referrals: Students in sites with a focus on ELA and math have a significantly smaller increase in discipline referrals than students in sites with a focus on enrichment.

Grades: Students in sites with a focus on enrichment have a significantly greater increase in ELA grades than students in sites with mixed activity subject areas. Students in sites with a focus on enrichment have a significantly greater increase in math grades than students in sites with mixed activity subject areas. Students in sites with a focus on enrichment have a significantly greater increase in science grades than students in sites with mixed activity subject areas.

Classroom Performance: Average improvement in classroom performance was the greatest for students in sites with an ELA and math focus, followed by students in sites with mixed activity subject areas. Students in sites with a focus on enrichment have the smallest improvement in classroom performance.

Summary

PACT Scores: Average ELA PACT scores increased for students in sites that take a pedagogical and mixed policy approach. ELA PACT scores also increased for students in sites with a focus on ELA and math subjects. Average Social Studies PACT scores for students in sites with a child development policy approach increased. Social Studies PACT scores also increased for

students in sites with an average internal environment. Average Math PACT scores for students in sites with average and positive internal environments increased.

Absences: Absences for students in sites with a pedagogical policy approach decreased. This was also true for sites emphasizing ELA and math.

Grades: ELA grades improved for students in sites with a pedagogical policy approach. Students in sites with a focus on enrichment also improved their ELA grades as well as math and science grades.

Classroom Performance: The classroom performance of students in sites with a pedagogical policy approach is superior to that of a child development or mixed policy approach.

Influence of Independent Variables

The independent variables had a relatively minor influence on outcomes when not analyzed as combinations of variables. There were some differences noted among a few variables on PACT scores and other outcomes, but these relationships should be tested further before conclusions are reached.

Influence of Extraneous (Demographic) Variables

Sponsoring Organization

There are no significant relationships between the differences in students' PACT scores and the type of organization that sponsored the program site.

Absences for students who attended a site sponsored by a school district increased less than the absences for students who attended a site sponsored by a Boys and Girls Club. Discipline referrals for students who attended a site sponsored by a community based organization increased more than the referrals for students who attended sites sponsored by other types of organizations.

Math grades for students who attended a site sponsored by a school district decreased less than the math grades for students who attended a site sponsored by a community based organization. Science grades for students who attended a site sponsored by a school district increased, while the science grades for students who attended a site sponsored by a community based organization decreased.

The average improvement in classroom performance for students who attended a program sponsored by a Boys & Girls Club was lower than the average improvement of students who attended sites sponsored by community based organizations and sites sponsored by school districts.

Rural Versus Urban Setting

There are no significant relationships between the difference in students' ELA, Math, Science, or Social Studies PACT scores and whether the site was located in a rural or urban setting.

Students in sites that are located in a rural setting had greater increases in yearly absences and in yearly discipline referrals than students in sites that are located in an urban setting.

Students in sites that are located in a rural setting had increases in math and science grades, whereas students in sites that are located in an urban setting had decreases in math and science grades.

Students in sites that are located in a rural setting had greater average improvement in classroom performance than students in sites located in an urban setting.

Student Demographics

Students in elementary school experienced a decrease in ELA PACT scores, while students in middle school had an increase in ELA PACT scores. Students in elementary school experienced an increase in Math PACT scores, while students in middle school had a decrease in Math PACT scores.

Discipline referrals for students in high school decreased, whereas the referrals for students in middle school increased.

Students in elementary school experienced a decrease in math grades, while students in middle school had an increase in math grades.

Male students experienced a decrease in ELA PACT scores, while female students had an increase in ELA PACT scores. Female students experienced a decrease in Science PACT scores, while male students had an increase in Science PACT scores.

Female students experienced a smaller increase in discipline referrals than male students. There were no significant differences in absences by gender. Female students' average improvement in classroom performance was higher than male students' average improvement in classroom performance.

The ELA PACT scores for Hispanic students increased, while the ELA PACT scores for Caucasian students and African American students decreased. The Math PACT scores for African American students decreased, while the Math PACT scores for all other students increased. The Social Studies PACT scores for Hispanic students increased, while the Social Studies PACT scores for Caucasian students decreased.
The absences for African American students increased more than the absences for Caucasian students. The average improvement in classroom performance was greatest for Hispanic students.

Students who receive free or reduced lunch had a significantly smaller decrease in their Social Studies PACT scores than did students who do not receive free or reduced lunch. There were no significant differences for ELA, Math or Science PACT scores according to the students' lunch status. There were also no significant differences in absences, referrals, grades in school, or classroom performance according to the students' lunch status.

Students who have a Limited English Proficiency have increased their ELA PACT scores more than the remaining population of students.

Discussion

The first year of the five years of evaluations was in several ways preparatory to the other four evaluations 2007-2010. There were five parts to this preparation.

- While the work of the first evaluation was being conducted by System Wide Solutions (SWS), SWS was also designing and developing a web based information system which in the future will contain all of the student-level and program and site level quantitative data and much of the program and site level qualitative data needed for state and local evaluations. In addition, this system will be the source for state reports and Learning Point uploads.
- Instruments were designed, tested and perfected for gathering the qualitative data needed for the state evaluation.
- A method was developed for supporting programs in conducting their own evaluations.
- Teacher surveys were designed and formatted to make them as simple as possible and student and parent surveys obtained.
- The evaluation design was developed and implemented. A process was begun of eliminating variables that do not have significant influence on outcomes and identifying factors that do have influence on outcomes.

A great deal was learned in developing the first evaluation. Two items are of particular importance. The first is that individual variables have less influence on outcomes than do combinations of variables that constitute policy, the internal environment and the activities of the programs. Of these, the policy factor accounts for most of the variation in outcomes.

The second is that the students in the 21st CCLC programs are demographically and academically similar to the students who drop out of school. Simply keeping the students in school and performing at the same level that they are currently at is likely to lead to the successful conclusion of high school graduation.

Conclusions

The second year of the evaluation will concentrate on replicating the findings of the first year regarding the primary factor and sub-factors. If these should again account for the large degree of variance they did in the first year of the evaluation, they can be tested in a more direct manner through deliberately establishing programs established on the principles found in the primary factor and two sub-factors.

Recommendations

The independent and extraneous variables that appear to have an influence on outcomes will continue to be measured and analyzed. If the variables prove to have a significant influence, model programs and "best practice" scenarios will be developed based on these findings.

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INTRODUCTION

The 21st CCLC Program Federal and State Mandates

The 21st Century Community Learning Centers (CCLC) program is administered by the U. S. Department of Education and is authorized under Title IV, Part B, of the Elementary and Secondary Education Act, as amended by the *No Child Left Behind Act of 2001*. The purposes of this program are 1) to create or expand community learning centers that provide academic enrichment opportunities to assist students, particularly those who attend high-poverty and low-performing schools, in meeting state and local standards in core academic subjects; 2) to offer students a broad array of enrichment activities that can complement their regular academic programs; and 3) to offer literacy and other educational services to the families of participating children.

The South Carolina State Department of Education (SDE) administers the 21st Century Community Learning Centers (21st CCLC) program in South Carolina as the State Education Agency (SEA). Through a competitive process, the SDE awards funds received from the USDOE to local organizations for the purpose of establishing or expanding community learning centers. At the end of the 2005-2006 school year, there were 90 programs (operating 192 sites) funded in the state.

The 21st Century Community Learning Centers in South Carolina

The South Carolina 21st CCLC program is housed within the Safe Schools and Youth Services Office of the South Carolina Department of Education. The State Office states that "A community-learning center offers academic, artistic, and cultural enrichment opportunities to students and their families when school is not in session (before school, after school, during holidays, and/or during the summer recess)." The purposes of the South Carolina CCLC are to:

1. Provide opportunities for academic enrichment, including providing tutorial services to help students, particularly students who attend high-poverty and low-performing schools, to meet State and local student performance standards in core academic subjects, such as reading and mathematics;
2. Offer students a broad array of additional services, programs, and activities, such as youth development activities, drug and violence prevention programs, counseling programs, art, music, and recreation programs, technology education programs, and character education programs, that are designed to reinforce and complement the regular academic program of participating students; and
3. Offer families of students served by community learning centers opportunities for literacy and related educational development.

At the beginning of the 2005-2006 school year, the South Carolina 21st CCLC had 92 programs and 199 sites. During the school year, two programs became inactive, leaving 90 programs and 192 sites. Of these programs, 16 were first funded in 2002, 19 in 2003, 43 in 2004 and 12 in 2005. A total of 16,647 students were reported to have attended 21st CCLC during 2005-2006.

Purpose of this Study

The purpose of this study is to determine what methods, program elements, interventions and other attributes contribute in what manner and to what extent to successful outcomes for students in the South Carolina 21st CCLC. The study methodology recognizes that not every demographic grouping of students necessarily responds with success to the same set of methods, elements, interventions and attributes. Therefore, differences in successful outcomes among various demographic variables are also examined. Ultimately, over time, the researchers hope to be able to describe best practices for South Carolina's after school and other after school programs. This study is also designed to meet the Federal evaluation requirements for a statewide evaluation of the 21st CCLC.

Federal Evaluation Requirements

The Federal 21st CCLC evaluation guidelines require State Education Agencies (SEAs) administering 21st CCLC funds to ensure that programs:

- Meet the principles of effectiveness based on the assessment of objective data, an established set of performance indicators, and scientifically-based research on helping students meet a state's high academic achievement standards;
- Use performance indicators and performance measures for evaluation;
- Conduct a periodic evaluation of how the program or activity is providing high quality academic enrichment;
- Use evaluation findings for continuous improvement of the program, broader dissemination of promising practices, and for the general information of the public;
- Receive ongoing technical assistance and training that enables them to implement effective program and evaluation strategies.

State level evaluations must also be conducted on a regular basis to determine the effectiveness of the statewide 21st CCLC program. Statewide evaluations must use performance indicators and measures for evaluation.

There are therefore two responsibilities of the SEAs regarding quality of programming. The first is direct accountability, a quality assurance function conducted through performance measurements taken at the program and site level. The second is a continuous quality improvement function conducted through an evaluation at the grantee and state level.

The Federal government requires that local sites submit Annual Performance Reports (APRs) on a web-based information system operated by Learning Point. In addition to the APR information, provided by the sites, the states must provide a Competition Overview record for each competition held for funding; a State Activities record for activities carried out during the year; and a Grantee Profile record for all grantees that received a grant award since the current program year or earlier. This information is all submitted once a year, in the fall. The APR information is site level, and not student level, data. It is therefore very helpful for determining accountability for sites, programs and the state, but not useful for program evaluation purposes

The 21st CCLC evaluation guidelines require two levels of program evaluation. These are comprehensive state level program evaluation and local grantee level periodic evaluation. The purposes of the two levels of program evaluation are, first, to determine the effectiveness of the 21st CCLC program in achieving its goals and, second, to provide information to allow for continuous program improvement at both the local and statewide levels.

At the state level, SEAs should conduct replicable studies including rigorous statistical analysis and generalizable conclusions. At the site level, grantees must conduct evaluations that answer questions that will let the site know how well it is improving positive academic outcomes for participants and how it is doing so. At both the state and site level, the evaluations must follow the standards of scientifically-based research.

21st CCLC Federal Objectives and Performance Indicators

Objective 1**:** Participants in 21st CCLC programs will demonstrate educational and social benefits and exhibit positive behavioral changes.

1.1 Achievement Outcomes Increasing percentages of students regularly participating in the program will meet or exceed state and local academic achievement standard in reading and mathematics.

1.2 Behavior Outcomes Students participating in the program will show improvements on measures such as school attendance, classroom performance, and decreased disciplinary actions or other adverse behaviors.

Objective 2**:** 21st CCLC programs will offer a range of high-quality educational, developmental, and recreational services.

2.1 Core educational services. More than 85 percent of centers will offer high quality services in at least one core academic area, e.g., reading and literacy, mathematics, and science.

2.2 Enrichment and support activities More than 85 percent of centers will offer enrichment and support activities such as nutrition and health, art, music, technology, and recreation.

2.3 Community involvement. Centers will establish and maintain partnerships within the community to increase levels of community collaboration.

2.4 Services to parents and other adult community members. More than 85 percent of centers will offer services to parents, senior citizens, and other adult community members.

2.5 Extended hours. More than 75 percent of centers will offer services at least 15 hours a week on average and provide services when school is not in session, during the summer, and holidays.

Objective 3**:** 21st CCLC programs will serve children and community members with the greatest needs for expanded learning opportunities.

3.1 High-need communities. More than 80 percent of centers are located in high-poverty communities.

Summary of Overall South Carolina Approach

System Wide Solutions, a research and consulting firm based in Columbia, SC, has a five year contract with the SC SDE to evaluate the 21st CCLC. SWS has three overall responsibilities regarding the South Carolina 21st CCLC program. These are: development and maintenance of a comprehensive management information system; provision of methods and training for local program evaluations; and the design and conduct of the statewide evaluation.

Grant Evaluation Management System (GEMS): The GEMS is a web-based live database utilized by all 21st CCLC programs and sites. This comprehensive management information system serves several purposes. All student, site and program level data associated with the 21st CCLC program, with the exception of financial data, is entered into the GEMS by programs and sites except for individual PACT scores, discipline referrals and attendance, which are provided electronically by SDE and entered into the system by SWS. All reporting to PPICS and the state 21st CCLC office is done from GEMS. GEMS contains the data from the teachers survey and, beginning in 2007, student and parent surveys. These surveys are completed on scannable forms and results are scanned directly into the GEMS. In addition, the data management system provides the formatted program level evaluations for each local program and site, as described below. All of the quantitative data necessary for the statewide evaluation is found in GEMS

Local Program Evaluations: The second responsibility of SWS is to work with the local programs to assist them in producing their own local evaluations. Built into the GEMS is the capability of data and templates for producing summary information for evaluations, and programs are being trained on making use of these resources as part of their GEMS training.

Statewide Evaluation: The statewide evaluation is a five-year-long process. The evaluation has two purposes. These purposes are:

- To determine if the South Carolina 21st CCLC conformed to the Federal 21st CCLC Federal objectives and performance measures.
- To conduct an in-depth evaluation of the state-wide South Carolina 21st CCLC. This evaluation will determine, over time, what methods, program elements, interventions and other attributes contribute in what manner and to what extent to successful student outcomes. Each of the five annual evaluation reports will examine this issue for the programs that were first funded three years prior to the year of the report. These evaluations will also compare changes in the PACT scores of students who attend the programs that are in their third year of funding with changes in the PACT scores of children in the same schools who do not attend these programs.

South Carolina's 21st CCLC Evaluation Approach

As stated above, the SDE has contracted with System Wide Solutions to evaluate the 21st CCLC program. This evaluation will take place over a five year period. During each of those five years, the programs which are in their third and fourth year of operation will be evaluated. Simultaneously, data on all the other programs will be gathered for reporting purposes, but also

for creating a database that will be helpful for future evaluations. The work on the evaluations began October 1, 2005. The SDE must submit the findings from the evaluations to the U. S. Department of Education (USDOE). Since this evaluation process will continue for five years, it will be possible to track many of the students for that length of time, allowing a longitudinal perspective to the evaluation.

South Carolina has chosen to take a holistic and integrated approach to its evaluative responsibilities. The centerpiece of the approach is an information management system called the 21st CCLC Grantee Evaluation Management System (GEMS). The data in this web-based system is entered by the programs and sites at the student level. The system serves as a data gathering method for accountability (or performance measurement), state level evaluation and local level evaluation. In addition, the Annual Program Review information required by the Federal government will be uploaded from the GEMS beginning in 2007. The GEMS was developed by and is maintained by System Wide Solutions. Since the first phase of the GEMS development began at the same time that the evaluation contract was let on October 1, 2005, data from the GEMS was not available for use in this 2005-2006 study. However, it will be used in future studies.

Performance measurement occurs through use of the data in the GEMS system and site visits by state staff. For example, the GEMS is capable of providing information at any time on attendance at any site, while site visits can provide direct observation of activities.

The state level evaluation utilizes objective, qualitative information gathered in site visits and interviews by SWS staff along with other information provided by sites and programs on the GEMS (and through other methods for the 2005-2006 state level evaluation). Surveys are also entered into the GEMS and used in the evaluation. This information describes the individual sites in detail. Those details are compared to outcomes for students to determine which details are most effective so that adjustments can be made and improvement can be continuous.

The site level evaluations will utilize the GEMS through built-in report functions that will allow the sites to answer at least the following questions.

- Who is participating in my after school program and to what extent are they participating?
- What is the staffing for my program? What training do they have/need?
- What services does my after school program provide?
- How can I improve my after school services? Are participants, families, and the community satisfied?
- What is the impact of my after school program? Academic achievement (e.g., increased school attendance and homework completion)? Youth Development (e.g., increased positive school behavior)?

Organization of the Evaluation

There are two separate groups of programs that are being evaluated for the 2005-2006 school year. The first group consists of the 55 programs that are in their first or second year of funding. The evaluation of this group is descriptive. SWS used data provided by the programs and the

State Department of Education to describe the programs and their activities for the 2005-2006 school year. This evaluation is called the 2005-2006 21st CCLC Descriptive Evaluation and is found in Volume II of the evaluation.

The second group is the 35 programs that were initially funded during the first and second years of the 21st CCLC federal program under No Child Left Behind in South Carolina. These programs were evaluated in depth, by identifying and describing with which student populations each program is most successful and to what factors that success may be attributed. The goal of the evaluation of this group of programs is to identify the program variables that can be replicated in other programs to produce similar results. In other words, to attempt to identify the best practices for 21st Century Community Learning Centers in South Carolina. This evaluation will be called the 2005-2006 21st CCLC In-Depth Evaluation and is found in Volume I of the evaluation.

Scientific Research and Measures of Success

The authorizing statute for the 21st CCLC states that the grantees must continuously evaluate using performance measures, and that these evaluations must be based on scientific research methods. That is what is being attempted in the work being conducted by SWS in this study. Ultimately, any such work must focus on outcomes that remain consistent throughout the process of the evaluation. Those outcomes (the dependent variables) are described below in the methodology. In some ways, the researchers' job is simple - to find out what activities and behaviors that can be controlled, like use of computers and hours of services, have an effect on the variables a program is designed to change, like test scores. Identifying the activities and behaviors and proving the effects is the difficult part.

In the case of this research, however, there is an unusual opportunity. There is the opportunity to follow a group of students for five or six years, some right through high school graduation. This is important because, ultimately, it would seem that the most vital issue is not whether the test scores improve, or grades go up, but whether the student does well enough to continue to advance from grade to grade, pass the high school exit examination and actually receive a diploma.

As SWS works on this project over the next five years, it will be developing hypothesis based on the research findings and testing those hypotheses. The first, and we believe most important, hypothesis is that after school programs like the 21st CCLC can stabilize and maintain in school South Carolina elementary school students whom the literature predicts will drop out of school before high school graduation and that these students will graduate in greater than expected proportions.

METHODOLOGY FOR VOLUME I

Overview

Volume I of the study contains the state level evaluation of the South Carolina 21st CCLC. This section begins with a presentation of how well the state has met the federal objectives and performance indicators for all funded programs during the 2005-2006 school year. The evaluation continues with a study of all active sites that were first funded during the 2002-2003 and 2003-2004 grant periods. During the 2005-2006 grant period, there were 92 active sites which were first funded during the 2002-2003 and 2003-2004 grant periods. The study determines which variables and attributes of the 21st CCLC sites are associated with student success. The qualitative variables and attributes were identified through structured observation, group and individual interviews and focus groups conducted at 70 of the 92 sites, as well as through a review of the literature. Written materials from the sites and their programs were also reviewed and sites and programs were asked to complete questionnaires and provide quantitative data and teacher surveys. Of the 92 active sites, 68 provided valid student-level data to the research team. A total of 35 independent variables were examined for their influence on outcomes. Preparation of the data for analysis revealed a primary factor and three clusters of sites that accounted for much of the variance among outcomes. Two sub-factors were discovered which accounted for much of the remaining variance. These were analyzed along with the independent variables to determine influence on outcomes.

The primary measure of success (or outcome) is a comparison of pre and post program year PACT scores. In addition, four secondary measures of success are utilized: grades, classroom performance, discipline referrals and school attendance. Outcomes for students are examined as a whole and by the extraneous variables of grade level, ethnicity, gender, special needs, English proficiency and free and reduced lunch status. In addition, the influences of five site variables are examined. These are school size (of site and/or feeder schools), percentage of students in the site/feeder school that receive free or reduced lunch, rural/urban, sponsoring organization type, and whether or not the school is a Title I school. Changes in PACT scores for students who took part in the program are also compared to changes in PACT scores of students in the same feeder schools who did not take part in the program.

Literature Review

Summary

There have been extensive evaluations of out of school programs around the country to determine the factors that make programs successful. It is clear from the literature that success for low income students in after school programs is largely determined by six factors. These factors are:

- Consistency of attendance by the students.

- Quality of the program.
- Quality of the program staff.
- Behavior management practiced by the program staff.
- Integration of the learning into the after school experience.
- Parent/guardian involvement.

The Review

A literature review was conducted to establish what describes successful after school programs and how the descriptions and success are measured. The literature was reviewed to determine which aspects of after school programs create potential differences in children's performance and what are best practices in after school program delivery. In addition, the literature review examines the possible methods for measuring best practices and changes in performance.

Studies show that the quality of out-of home childhood care has affects on child outcome. High quality child care is associated with more positive cognitive and social development than low-quality care (Burchinal, 1999; Phillips & Howes, 1987). The RAND Corporation has determined a need for high-quality programming and staff in after school programs. A study by RAND (Bodilly & Beckett, 2005) helped identify program factors that are associated with quality after school programs that produce positive outcomes. These include: (a) a clear mission, (b) high expectations and positive social norms, (c) a safe and healthy environment, (d) a supportive emotional climate, (e) a small total enrollment, (f) stable and trained personnel, (g) appropriate content and pedagogy relative to the children's needs and the program's mission, with the opportunity to engage, (h) integrated family and community partners, and (i) frequent assessment.

Attendance is another important factor in evaluating the effects of after-school programs. Pierce and Vandell (1999) found that academically at-risk children who attended after school programs more frequently, as compared with children who attended less often, developed better work habits in their school classrooms, attended school more often, and endorsed less aggressive strategies to resolve conflicts with peers.

It is important that children from high-risk, low income backgrounds have the opportunity to attend because they have the most to gain from after school programs. Research has shown that children living in poverty often suffer lower socioemotional functioning than their higher-income peers. More specifically, these children are more likely to experience depression, have lower levels of sociability, become involved with deviant peers, and disrupt the classroom (Eamon, 2001). Children living in poverty also suffer academically. They tend to perform worse than their higher-income peers on standardized achievement tests (Duncan et al., 1998) and have lower grades in school (Posner and Vandell, 1994). Because children from high-risk, low income backgrounds start at lower baseline levels in the areas of socioemotional functioning and academic achievement and have fewer outlets for improvement, they have more to gain than their high-income peers from after-school programs.

In order to increase attendance for these children, common barriers must be addressed. According to Fashola and Cooper (1999), oftentimes issues such as transportation, cost, and lack of care for younger siblings prevent parents from enrolling their children in after school programs. Lack of transportation leaves many parents with no way to transport their children to or from the program, especially when parents are working during the time the program terminates at the end of the day. Parents often feel uncomfortable allowing their children to walk home, especially in dangerous neighborhoods after dark. High cost is another barrier to after school participation for low-income families who already struggle to make ends meet. Finally, many parents are reluctant to have their older children join after school programs even when other obstacles have been overcome because there may be no one available to watch younger children who are not also participating in after school programming.

While academic achievement is an important part of the measurement of the success of programs, it cannot occur if students' behavior interferes with the learning process. A study conducted by Howse et al. (2003) determined that at-risk children were less able to regulate task attention than their not-at-risk peers. In younger children, this inability to regulate their attention contributed to poorer academic achievement. Another study by Alexander, Entwisle, and Horsey (1997) found that as early as the first grade, students who have low levels of engagement in school as defined by poor work habits, externalizing behaviors, and low levels of adaptability to their environment are at higher risk of high school dropout.

Behavior that allows learning to occur is a precursor to academic achievement for any student. According to Posner and Vandell (1994), low-income children involved in after school programs showed better conduct in school, more positive peer relations and higher levels of emotional adjustment than their low-income peers who did not participate in after-school programming. Walker and Arbreton (2001) found that after-school programs support social and interpersonal dimensions of skill development as well. These programs also teach children to engage in cooperative work with peers (Miller, 2003) and increase connections with adults (Gambone, Klem & Connell, 2002).

Studies on academic achievement resulting from after school programs have mixed results. A meta-analysis of 56 schools conducted by the Mid-Continent Research for Education and Learning (Lauer et al., 2004) found that achievement in math and reading increased for low achieving, low income children. On the other hand, the RAND literature review reported that a 21st Century Community Learning Centers study discovered that after school programs had little influence on academic achievement, but students participating in out-of school time programs received more school credits and were more likely to graduate from high school than those in the control group (Bodilly & Beckett, 2005). While high quality after school programs show promise for improving low-income children's grades and achievement test scores (Posner and Vandell, 1994), improving on academic measures is not as important as maintaining where they are without academic performance deteriorating since many of these students would be expected to have poorer performance over time and leave school prematurely.

Afterschool programs that are shown to have the most positive effects on academic achievement integrate learning into the after school experience. When literacy activities are integrated into the after school experience, literacy is shown to increase (The Robert Bowne Foundation, 2003). In

addition, reading achievement is increased when programs promote interactive reading experiences, which might include, for example, teaching children to follow written directions.

Children also benefit when parents become involved in their learning experience. It has long been established that parents' participation in children's education is essential to children's full learning experience (Bronfenbrenner, 1974 and 1979). Many after school programs involve improving parent education and providing parents with skills to better help their children. It is found that parents of children from high-risk backgrounds participate more fully with the school programs, including becoming involved in the PTA or volunteering to help at the school (Broh, 2002; William T. Grant Foundation, 2004). Parents are also more likely to help their children with homework when their children attend after-school programs (Bodilly & Beckett, 2005). The more education a parent has, the more time a child engages in studying and reading (Bianchi & Robinson (1997). Providing educational opportunities to parents can therefore be an important part of an after school program.

After school programs have social implications as well. There is evidence that involvement in after school programs is related to a decrease in drug use, juvenile arrests, vandalism, and violence (Mason-Dixon Polling and Research, 2002; Patten & Robertson, 2001; Snyder & Sickmund, 1999).

Low-income children involved in after school programming are offered the opportunity to engage in education and recreational activities that may be otherwise unavailable to them (Posner and Vandell, 1994). Children involved in after school programs watch less television and engage in more enrichment activities than similar children who are left unsupervised during the afternoon. There is also decreased risk of lower-income children involved in after school programs to become involved in deviant behavior with peers when left unsupervised.

Elementary School Predictors of Drop-Outs

Guillermo Montes, Ph.D. and Christine Lehmann, MS, conducted a review of the literature on predictors of dropping out of high school among elementary school students in 2004. Published by the Children's Institute, this technical report provides an excellent review of what is known about how to identify who will drop out of high school while these students are in elementary school. If that much is known, then interventions, such as the 21st CCLC, can be designed to intervene in the process that would lead to these students leaving school prematurely. The entire review, ("*Who Will Drop Out From School? Key Predictors from the Literature"*) may be found in Appendix One.

The authors point out that dropping out is a process that starts before the student enters school. As the students move through the school system, the process is observed in different behaviors, beginning with problem behaviors, poor school performance and grade retention in the first grade, and on to discipline problems, absenteeism and failure in middle and high school. By the time the student enters high school, it may be too late to change course. Hence, intervention in the problem behaviors and poor school performance early on can make the difference between success and failure in graduation.

Montes and Lehmann identify three major themes. These are:

1. "Early predictors matter. Even after controlling for later variables, first grade problem behaviors, school performance and grade retention were significantly predictors of school dropout."
2. "Grade retention is a major predictor. Grade retention, a variable largely under the control of schools, was identified in multiple studies at every grade level. Almost all children who had multiple grade retention dropped out."
3. "Multiple risk factors are better predictors than a single risk factor."

Montes and Lehmann make two recommendations. These are:

1. "Prevention of school drop out starts early. A strategy for prevention is needed at every stage of development."
2. "Based on multiple early risk factors, identification of students at risk for dropping out is possible."

Data Sources

The current study makes use of seven data sources. These sources are:

- The information systems of the South Carolina Department of Education
- 21st CCLC Profile and Performance Information Collection System
- Structured observations, group and individual interviews, and focus groups interviews, conducted by SWS on-site and by telephone
- Data sheets provided to SWS by local sites
- Teacher surveys
- Written materials from state and local 21st CCLC programs
- Completed questionnaires from programs

Since the first phase of the GEMS development began at the same time that the evaluation contract was let on October 1, 2005, data from the GEMS was not available for use in this study. However, it will be used in future studies.

Instrumentation

The literature review revealed a paucity of instrumentation for identifying and measuring the elements that enter into the success of after school programs. Much of the instrumentation had to be developed by SWS itself. However, two studies utilized instruments that appeared to be helpful. The first of these is *Accountability for After-School Care: Devising Standards and Measuring Adherence to Them* Report by Megan Beckett, Angela Hawken, Alison Jacknowitz, 2001 by the RAND Corporation. This report contained a behavioral interaction form that was used in the present study. The Activity Observation Checklist described by Vandell et al. (2004) in *A Study of Promising After-School Programs* was also used. The development of this

checklist was led by Policy Studies Associates. SWS sought and received permission to use these two instruments.

Due to this lack of instruments specific to the needs of this study, SWS developed its own instruments. The instruments developed by SWS and the two instruments it received permission to use may be found in Appendix Two.

A teacher survey instrument was used to gather information on students' classroom performance. The surveys were completed by the students' English or math teacher. One teacher survey was completed for each student who regularly attended the program. This survey is included in Appendix Three.

Databases

There are two database developed and utilized by SWS in this study. The first of these is the Descriptive Database, which includes, as the name implies, data which describes the 21st CCLC programs, sites and students. The second of these is the Experimental Database. This database includes the data elements which were specifically created or identified as independent variables to be examined for their influence on the outcomes desired for the students in the South Carolina 21stCCLC.

The Descriptive Database

The Descriptive Database for the study was developed in Access. There were three major data sources for the database: the State Department of Education, the programs and sites themselves, and the Learning Point database. More specifically, the descriptive data came from the PPICS Grantee Profile and 2006 Annual Program Review (Learning Point), the quarterly and annual reports provided to the State Department of Education 21st CCLC office by programs and sites, data from the State Department of Education Information Technology unit, and hard copy or electronic reports provided directly to SWS by programs and sites.

The State Department of Education provided 2005 and 2006 PACT scores, absences for the 2005-2006 school year, discipline referrals for the 2004-2005 and 2005-2006 school years, and demographic information for the students in the program, as well as the PACT scores and demographic information for students in the same schools, but not in the program. SWS with the help of the 21st CCLC state office began negotiation with the State Department to receive this information in January of 2006. SWS received the first two datasets from the State Department on October 31, 2006. This data was then reviewed by SWS for consistency and validity. The State Department provided SWS with a validated dataset on November 14, 2006. A final request for data was made and the State Department provided the final dataset on November 28, 2006. The data was imported into the Access database.

The programs and sites were alerted in January of 2006 of what information would be requested from them via communications from the state 21st CCLC office. The programs and sites were sent data report forms formatted in Word in April of 2006. As the reports were received back at

SWS the data were imported into the Access database. Reminders were sent to the programs twice in May. During June, July and August individual phone calls and emails were sent to programs and sites that had not responded. Technical assistance was provided throughout the process.

The Descriptive database includes three main elements, described below.

Program Level Data

- Program Objectives**:** description and category
- Curricula: name or description of curriculum being used
- Community Partnerships: name of organization, activities conducted, subcontract amount, in-kind donation amount.
- Name and Contact information for Staff Members
- Site Locations: name of site and feeder school and feeder school district
- Family Literacy Activities: frequency of activities offered and number of adults served.
- Type of Organization
- Other Funding Streams

Site-Level Data

- Number of Teachers and their Credentials/Education level
- Activities (to be collected and presented back to programs using a calendar**)**
- Operation: days and hours of operation, number of weeks open.
- Feeder Schools**:** name and type of school

Student-Level Data (Both For Students Who Accepted Learning Center Services and For Those Who Did Not)

- Demographics: Gender, Race, Grade level, Free/Reduced Lunch Status, Special Needs, limited English proficiency, School Attended, Date of Entry into the Program, Date Dropped from the Program.
- Grades in School: Math and English grades by grading period for current year. (accepted services only students)
- School Attendance: number of days absent from school by grading period for current and previous year. (accepted services only students)
- Discipline Referrals: number of discipline referrals by grading period for current and previous year. (accepted services only students)
- Program Attendance: number of days the student participated in the program (accepted services only students)
- PACT Scores: test score (numeric) for previous and current year.
- Teacher Survey (accepted services only students)

Identifying the Variables in the Experimental Database

Essentially, the Experimental Database contains the independent variables which are to be examined for their influence on the dependent variables for students overall and for students when controlled for extraneous variables such as race, gender, ethnicity and so on. There are two sources for these independent variables. Many, such as funding information and activities provided to participants, are found in the Learning Point database. Ones requiring observation, interviewing and on-site work were determined by SWS. These are called the Qualitative Independent Variables.

Identifying, Measuring and Coding the Qualitative Independent Variables

The strategy used to identify the qualitative independent variables that may have an impact on outcomes for students in the 21st CCLC program was to conduct broad qualitative measurements, identify dominant themes from these measurements and then reduce these themes to measurable data elements.

Measurement

The measurement tools are described in the Instrumentation Section above and presented in Appendix Two. The method for conducting the measurements was as follows:

- Seventy-two sites representative of the 92 possible sites were chosen. The choices were made based on geographic distribution, urban/rural mix, grade level of program participants and program sponsorship type. (Two sites dropped from the sample due to scheduling conflicts, leaving a total of 70.)
- Appointments were made with programs during November and December 2005 for visits to the sites during January through April 2006.
- Telephone interviews were conducted with the Program Directors one to two weeks prior to the appointments.
- The data about the feeder schools available on the SDE web site was reviewed prior to the site visit by the site visit team.
- The APR information on the site was reviewed by the team prior to the site visit.
- Teams composed generally of two members met with the site coordinator and, if possible, with the principal before conducting group interviews, observations and so on.
- Either prior to or during the visit, site coordinators were asked to complete the staffing forms and to provide a full agenda of program activities.
- After a site visit, a summary of the visit was written by the two team members, who had to reach agreement on the content of the summary.
- All information and forms were scanned into electronic files and also secured in filing cabinets.

Identifying Themes

During and after the site visit period, the seven staff members who made site visits met frequently to discuss possible themes that emerged from the findings of the visits and materials provided by SDE and the programs and sites, as well as the literature. Subsequent to the completion of all site visits, ten final themes were chosen. These themes were defined as specific elements and guidance developed for determining the presence and degree of the elements in sites. This guidance was then reduced to a scoring sheet, which may be found in Appendix Four. The themes and a brief description are as follows.

1. **LEADERSHIP:** Applies to attributes of the site coordinator. Leadership is defined as providing resources, providing support for staff, communicating well, setting direction for the program, having a positive and encouraging attitude toward staff and parents. Lies along a continuum from community organizer if coordinator stresses bringing in community resources or promotes students to do service learning, volunteer work, etc. to educator if emphasis is largely on academic instruction.

2. **PARENTAL SUPPORT:** Support given by parent or parent substitute to student in their school life.

3. **COMPUTER ASSISTANCE:** Degree and type of access students have to computers as learning tools.

4. **ENRICHMENT:** Structured learning that is not connected directly to specific academic subjects. This learning usually occurs through activities that are experiential and hands-on. Enrichment includes many activities such as drama, karate, crafts, clubs, singing, field trips.

5. **ADJUSTMENT TO LEARNING ENVIRONMENT:** Program promotes positive student attitudes toward school and learning.

6. **BEHAVIOR MANAGEMENT:** A structured system to reward positive student behavior and discourage negative student behavior; system may be a carryover from the regular school day or a unique feature of the 21st CLCC.

7. **PROGRAM STRUCTURE:** Manner and methods in which the program is organized to provide services.

8. **PROGRAM APPROACH:** Program philosophy or organizing principles.

9. **SCHOOL INVOLVEMENT:** Extent to which the AS program gets support from the principal and other administrators; extent to which the program is allowed to use classrooms, gym, cafeteria, computer lab, playground, library, etc.; extent to which school provides additional funding or staff to assist 21st CLCC (e.g food service staff, aides.

10. **STAFF CHARACTERISTICS:** Characteristics of volunteers and staff, including certification and morale.

Establishment of Final List of Independent Variables

An Access database table of the Experimental Database was created to store the qualitative independent variables. The files for each site that had been chosen for the study were reviewed by the individuals who made the site visit. They then independently completed a scoring of the sites. A query was conducted of the codings to determine means and standard deviations. If the standard deviation for any scoring was 2 or greater, a third coder scored the item, then negotiated between the two original scorers until the scores were within two standard deviations. This completed what was called the Initial Scoring.

Following the completion of the Initial Scoring of the site visits, the mean of the scores was computed to become the Final Scoring. The team then made a final review of all the information available, and chose 19 Qualitative Independent Variables (the first 19 listed below).

The team then reviewed other variables of interest and available in Learning Point data. Based on the literature, experience and what had been learned in the site visits, an additional 16 variables were added to the list, creating a list with a total of 35 independent variables. These are:

1. Leadership role type
2. Leadership effectiveness
3. Parental support
4. Hours of computer use available
5. Amount and variety of enrichment available
6. Behavior management method
7. Build group identity
8. Intrinsic rewards
9. Character education
10. Effectiveness of behavior management
11. Physical activity
12. Classroom organization
13. Program approach
14. Curriculum
15. Teaching method
16. School involvement
17. Certification status
18. Experience
19. Morale
20. Operating another program, such as Title I (from baseline report)
21. Number of Hours of operation during school year
22. Total hours of summer programming
23. Total yearly hours of programming
24. Number of adults served
25. Funding per site
26. Number of additional funding sources
27. Sum of the estimated monetary value of contributions from partners

28. Number of partners contributing programming or activity related services
29. Number of partners contributing paid staffing
30. Number of partners contributing volunteers
31. Number of partners contributing goods/materials
32. Number of partners contributing evaluation services
33. Number of partners contributing funding
34. Percent of available program time students present
35. Days students present in program broken down by Learning Point categories (fewer than 30 days, 30 to 59 days, etc.)

The numerical values for all of the independent variables were entered in the Experimental Database. These variables were linked to student-level data using a Site ID, so that each of the aforementioned independent variables for a particular site were included for each student at the appropriate site.

Dependent and Extraneous Variables

As stated elsewhere in the methodology, the dependent (outcome) variables for the study and extraneous variables for the study were entered in an Access database called the Descriptive Database. These variables are listed in Table 1 below.

Table 1: Dependent and Extraneous Variables

	Values/Range
Primary Dependent Variables	
ELA, Math, Science, and Social Studies PACT Proficiency Level	Difference in Proficiency Level by subject from 2005 to 2006. Ranges from -3 to +3
Secondary Dependent Variables	
Number of Discipline Referrals	Difference in yearly totals from 04-05 to 05-06
Number of Absences from Regular School Day	Difference in yearly totals from 04-05 to 05-06
Math, English, Reading, Science grade	Difference in grades in school from the first marking period to the last marking period of 05-06
Classroom Teacher Perception of Change	Teacher reported. Ranges from 1-7.
Extraneous Variables (Student Demographics)	
Grade Level	Elementary (K-5), Middle (6-8), High (9-12)
Gender	Male, Female
Ethnicity	African American, Caucasian, Hispanic, other
Lunch Status (receives free or reduced lunch)	Yes, No
Special Needs Status	Yes, No
Limited English Proficiency	Yes, No
Extraneous Variables (Community)	
School Size	Number of students enrolled at feeder school(s)
Site Location	Rural, Urban
Sponsoring Organization Type	SD, CBO, CLUB, NANPA, FBO, COU
Title I School	Yes, No

Analysis

The two databases (the Experimental Database and the Descriptive Databases) were imported into the Statistical Package for the Social Sciences (SPSS) for analysis purposes. The specific analysis was conducted in four parts.

The first part was an examination of the data as it pertains to the federal objectives and performance indicators. Objective 1 and its two outcomes (see Introduction) were examined by comparing baseline data on the dependent variables with the comparative data. Objectives 2 and 3 and their indicators (see Introduction) were examined by utilizing the data found in the Learning Point database as reported by the state, programs and sites.

The second part was to identify and examine the variables for analysis. The first step in this part was to analyze the relationships among the independent variables. An initial analysis determined that the relationships are multiple and non-linear. Therefore, a factor analysis was performed. After the factors were identified, a cluster analysis was performed of each factor and clusters of independent variables within each factor identified. Analyses were then conducted to identify the primary factor. During this part of the analysis, a number of independent variables were found to have no significant influence on the desired outcomes. Finally, each of the dependent, independent, and extraneous variables were described.

The second step in this part was to prepare the dependent variables for analysis. Outcome data was received for PACT scores, discipline referrals, absences from school, grades in school, and classroom performance for all students in the sites first funded for the 2002-2003 and 2003-2004 grant periods. For each outcome, the comparative data was analyzed against the baseline data using a paired-samples t-test. New variables were then created to represent the difference between the baseline and the comparative data. These new variables were then designated as the dependent variables throughout the remainder of the study.

The final step in the second part was to determine which factor had the most influence on the variance of each of the dependent variables. To do so, the Eta (coefficients of nonlinear association) was computed. It was determined that most variance could be accounted for by one factor, which was designated the Primary Factor, while the other two factors were designated sub-factors.

The third part of the analysis was to identify the influences on the dependent variables for students in all of the sites statewide. The first step in doing this was to conduct ANOVA analyses to determine how the primary and sub-factors influence the dependent variables. The second step was to statistically examine the influence of each independent and extraneous variable on the dependent variables. Independent sample t-tests, correlations and ANOVA were used for this stage. The final step was to examine the difference in PACT scores between students in the program and all other students in the schools. Comparisons with the control group were also conducted by each factor and by extraneous variables to determine if any of the findings for the factors could be accounted for by changes in scores in the schools in general and by differences in scores for different student demographic variables.

The fourth part of the analysis was to identify the influences on the dependent variables for students in each of the three clusters of the primary factor. For each cluster, data was analyzed in three steps. The first step was to conduct ANOVA analyses to examine each of the sub-factors against the dependent variables. The second step was to examine statistically the influence of each independent and extraneous variable on the dependent variables. Independent sample t-tests, correlations and ANOVA were used for this stage. The final step was to examine the difference in PACT scores between students in the program and all other students in the schools. Comparisons with the control group were also conducted by extraneous variables to determine if any of the findings for the factors could be accounted for by changes in scores in the schools in general and by differences in scores for different student demographic variables.

There were literally millions of calculations involved in the process of analyzing the data and hundreds of hours of staff time spent discussing the findings to determine the appropriate paths to continue the research in the right directions.

Throughout this process, the research team met daily to review findings and assure internal consistency in the research process. After all statistical analysis was completed, the team met for several sessions to determine the meaning of the findings and to prepare the discussion, conclusions and recommendations for Volume I of the study. Recommendations are divided into implications for programs and implications for further research.

Import of Analysis

At each stage of the analysis, some independent variables were found to have no significant influence on the outcomes desired for the students. However, clusters of independent variables were found that have a significant influence of which the researchers, at least, were not aware prior to examining the data.

Development of Tables and Graphs

The Access database was downloaded into Microsoft Excel to develop tables and graphs.

Limitations of the Study

As mentioned previously, data for the study was obtained from several sources. Each data source utilized a different ID code. For example, data obtained from the State Department of Education was identified using a BEDS code, which identifies the district and school with a seven digit code, whereas the PPICS system identifies the school with a feeder school ID. Because these codes do not match, the data had to be matched by school name. Attempts were made to manually match the schools by name; however, inconsistencies in naming conventions prevented some of the data from being included in the analysis. As a result, data on community and feeder school characteristics, which was obtained from the SDE website, was available for the feeder schools of 64 of the 68 sites. The GEMS was developed to account for the different IDs and prevent this limitation in future studies.

During the 2005-2006 grant period, there were 92 active sites which were first funded during the 2002-2003 and 2003-2004 grant periods. Of these, 68 sites provided valid student-level data to the research team. The student-level data was considered valid only when the site provided both the students' demographics and program attendance. Therefore, sites may have provided data on student demographics and outcomes; however, the data would not have been included in the analysis if the site did not provide data on program attendance.

Site visits were made to 51 of the 68 sites that provided valid student-level data. The remaining 19 sites for which qualitative data was available did not provide valid student-level data. Therefore, data for these sites are only included in the factor and cluster analyses.

Data on student demographics, absences, and discipline referrals were obtained from both the State Department of Education and from the individual sites. For some students, the data was contradictory, in that one source would report that the student had three absences while the other would report that the student had nine. In these instances, the data obtained from the State Department of Education was used. The research team felt this would be the most appropriate response, as the State Department of Education will be the sole source for these data types in the future.

Grades in school were provided by the individual sites. Schools in South Carolina utilize several different grading scales, such as 1 to 100, A through F, and three point grading scales such as Consistently Demonstrates, Somewhat Demonstrates, and Does Not Demonstrate. Analysis of changes in grades on these non-standardized scales proved inconsistent and was therefore rendered invalid. As a result, only those grades on a 1 to 100 grading scale were used. A method has been devised to attempt to account for these differences for the 2006-2007 report.

As a result of the aforementioned limitations, data for almost all of the dependent variables was only available for about half of the students who participated in the program. The program sites first funded in 2002-2003 and 2003-2004 reported in PPICS that they served a total 7,400 students. These same sites reported student data to SWS on 4,909 students. However, data on each outcome was available for only about 2,000 to 3,000 students. These limitations have been accounted for and attempts to correct the inconsistencies have been made in preparation for the 2006-2007 evaluation and study.

FINDINGS PART I: FEDERAL OBJECTIVES AND PERFORMANCE INDICATORS

The federal government requires 21st CCLC programs to report on three objectives. Reporting for these objectives is to be based on students "regularly participating" (that is, present 30 days or more) in programming at all of the programs receiving funding during the 2005-2006 grant period. The total number of regularly participating students served by the programs as reported to the PPICS system maintained by Learning Point Associates for that period is 13,291. The total number of regularly participating students served by the programs as reported to SWS is 9,308.

Objective 1: Participants in 21st CCLC programs will demonstrate educational and social benefits and exhibit positive behavioral changes.

1.1 Achievement Outcomes: Increasing percentages of students regularly participating in the program will meet or exceed state and local academic achievement standards in reading and mathematics.

State Academic Standards

State academic achievement scores come from the PACT Standardized Test, which is administered at the end of every school year. Students who complete the PACT test are assigned one of the following performance levels: below basic (BB), basic (B), proficient (P), or advanced (A). The standard for achievement is considered to be Basic. Aggregated data for 2005 PACT achievement levels was collected from the PPICS APR module. This data represents all students who regularly participated in 21st CCLC programming during the 2004-2005 grant period. Student-level data for the 2006 PACT achievement levels was obtained from the SC Department of Education. This data represents all students who regularly participated in 21st CCLC programming during the 2005-2006 grant period. These two groups are compared to show the change in the percentage of regularly participating students that met or exceeded state standards in reading and mathematics.

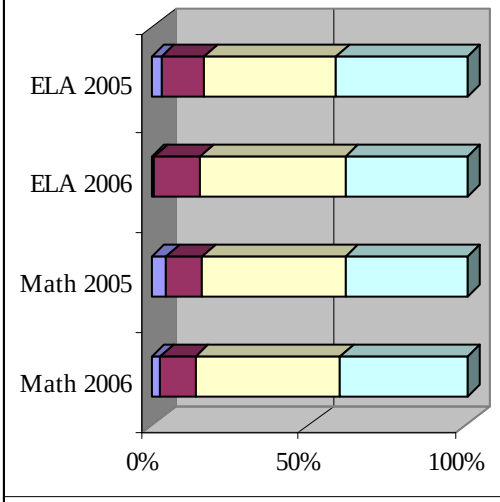
Of the 9,103 program participants who completed the ELA/Reading portion of the PACT test in 2005, 286 (3.1%) scored at the Advanced level, 1,224 (13.4%) scored at the Proficient level, 3,815 (41.9%) scored at the Basic level, and 3,778 (41.5%) scored at the Below Basic level. Overall, a total of 58.5% of the program participants met or exceeded the state standard in reading in 2005. Of the 7,885 program participants who completed the ELA/Reading portion of the PACT test in 2006, 67 (0.8%) scored at the Advanced level, 1,164 (14.8%) scored at the Proficient level, 3,607 (45.7%) scored at the Basic level, and 3,047 (38.6%) scored at the Below Basic level. Overall, a total of 61.4% of the program participants met or exceeded the state standard in reading in 2006. Therefore, the percentage of regular participants that met or exceeded the state standard in reading has increased by almost 5% in the past year, thereby meeting this portion of the objective. (See Table 2 and Figure 2.)

Of the 9,133 program participants who completed the math portion of the PACT test in 2005, 448 (4.9%) scored at the Advanced level, 1,003 (11%) scored at the Proficient level, 4,154 (45.5%) scored at the Basic level, and 3,528 (38.6%) scored at the Below Basic level. Overall, a total of 61.4% of the program participants met or exceeded the state standard in math in 2005. Of the 7,918 program participants who completed the math portion of the PACT test in 2006, 239 (3%) scored at the Advanced level, 861 (10.9%) scored at the Proficient level, 3,632 (45.9%) scored at the Basic level, and 3,186 (40.2%) scored at the Below Basic level. Overall, a total of 59.8% of the program participants met or exceeded the state standard in math in 2006. Therefore, the percentage of regular participants that met or exceeded the state standard in math has decreased by 2.6% in the past year. The state did not meet this portion of the objective. (See Table 2 and Figure 2.)

Table 2: Number of Regular Program Participants with Each State Achievement Level

	2005		2006	
	#	%	#	%
ELA/Reading				
Advanced (A)	286	3.1%	67	0.8%
Proficient (P)	1,224	13.4%	1,164	14.8%
Basic (B)	3,815	41.9%	3,607	45.7%
Below Basic (BB)	3,778	41.5%	3,047	38.6%
Total	**9,103**	**100.0%**	**7,885**	**100.0%**
Math				
Advanced (A)	448	4.9%	239	3.0%
Proficient (P)	1,003	11.0%	861	10.9%
Basic (B)	4,154	45.5%	3,632	45.9%
Below Basic (BB)	3,528	38.6%	3,186	40.2%
Total	**9,133**	**100.0%**	**7,918**	**100.0%**

Figure 2: Regular Program Participants with Each State Achievement Level



Local Academic Standards

Local academic achievement scores are the students' grades in school, which are assigned for each grading period by their school day teachers. Grades which are assigned by school teachers can be divided into five categories. These are A (93-100 points), B (85 to 92 points), C (77 to 84 points), D (70 to 76 points), and F (69 or fewer points). The standard for achievement is considered to be a C (average). Data for 2005-2006 grades were collected from the individual program sites. Data was only available for students who participated in programming during the 2005-2006 grant period. For this reason, the baseline data are the students' English/Language Arts (ELA) and math grades from the first grading period of the 2005-2006 academic year and the comparative data are the English/Language Arts (ELA) and math grades from the last grading period of the 2005-2006 academic year. It must be noted that the only grades included in this analysis are those on a 1-100 numeric grading scale. Grades were provided that were on

other grading scales; however, the variety of these scales made analysis difficult. A method has been devised to account for these differences for the 2006-2007 report.

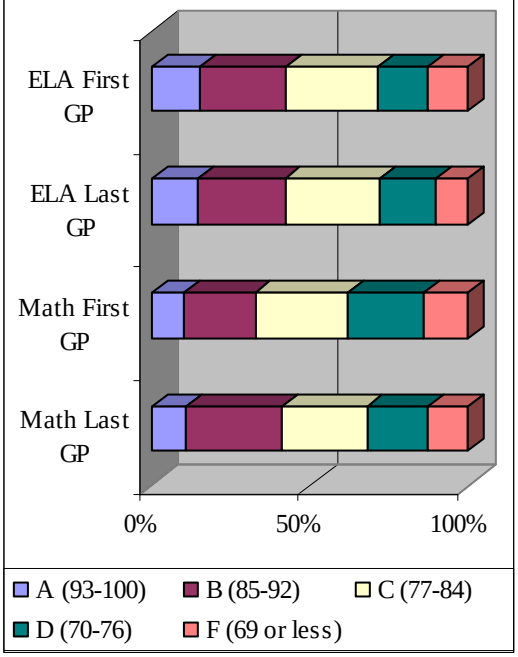
Of the 8,612 program participants for whom ELA grades for the first grading period were reported, 1,322 (15.4%) received an A, 2,331 (27.1%) received a B, 2,482 (28.8%) received a C, 1,366 (15.9%) received a D, and 1,111 (12.9%) received an F. Overall, a total of 71.2% of the program participants met or exceeded the local standard in ELA in the baseline period. Of the 7,740 program participants for whom ELA grades for the last grading period were reported, 1,155 (14.9%) received an A, 2,109 (27.2%) received a B, 2,296 (29.7%) received a C, 1,392 (18%) received a D, and 788 (10.2%) received an F. Overall, a total of 71.8% of the program participants met or exceeded the local standard in ELA in the comparative period. Therefore, the percentage of regular participants that met or exceeded the state standard in ELA has remained about the same. The state did not meet this portion of the objective. (See Table 3 and Figure 3.)

Of the 8,708 program participants for whom math grades for the first grading period were reported, 898 (10.3%) received an A, 1,953 (22.4%) received a B, 2,553 (29.3%) received a C, 2,069 (23.8%) received a D, and 1,235 (14.2%) received an F. Overall, a total of 62.1% of the program participants met or exceeded the local standard in math in the baseline period. Of the 7,744 program participants for whom math grades for the last grading period were reported, 844 (10.9%) received an A, 2,344 (30.3%) received a B, 2,076 (26.8%) received a C, 1,484 (19.2%) received a D, and 996 (12.9%) received an F. Overall, a total of 68% of the program participants met or exceeded the local standard in math in the comparative period. Therefore, the percentage of regular participants that met or exceeded the state standard in math has increased by 9.5%, thereby meeting this portion of the objective. (See Table 3 and Figure 3.)

Table 3: Number of Regular Program Participants with Each Local Achievement Level

	First Grading Period #	First Grading Period %	Last Grading Period #	Last Grading Period %
ELA/Reading				
A (93-100)	1,322	15.4%	1,155	14.9%
B (85-92)	2,331	27.1%	2,109	27.2%
C (77-84)	2,482	28.8%	2,296	29.7%
D (70-76)	1,366	15.9%	1,392	18.0%
F (69 or less)	1,111	12.9%	788	10.2%
Total	**8,612**	**100.0%**	**7,740**	**100.0%**
Math				
A (93-100)	898	10.3%	844	10.9%
B (85-92)	1,953	22.4%	2,344	30.3%
C (77-84)	2,553	29.3%	2,076	26.8%
D (70-76)	2,069	23.8%	1,484	19.2%
F (69 or less)	1,235	14.2%	996	12.9%
Total	**8,708**	**100.0%**	**7,744**	**100.0%**

Figure 3: Regular Program Participants with Each Local Achievement Level



1.2 Behavior Outcomes: Students participating in the program will show improvements on measures such as school attendance, classroom performance, and decreased disciplinary actions or other adverse behaviors.

School Attendance and Disciplinary Actions

School attendance is measured using the number of days the student was absent from school. Disciplinary actions are measured using the number of times the student received a referral for a discipline problem. Data was collected for all students who participated in programming during the 2005-2006 grant period. For the purposes of this report, the baseline data are the students' number of days absent and number of discipline referrals during the 2004-2005 academic year and the comparative data are the students' number of days absent and number of discipline referrals during the 2005-2006 academic year. Data for number of days absent and the number of discipline referrals were collected from both the individual program sites and the SC Department of Education. It must be noted that absences and referral data were available for less than half of the program participants. Therefore, conclusions can not be drawn regarding this performance indicator.

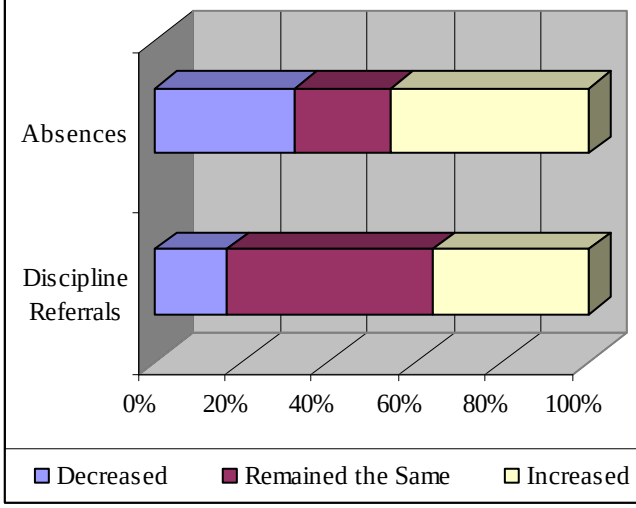
Of the 4,093 regularly participating students for whom both 2004-2005 and 2005-2006 data on absences from school were available, 1,327 (32.4%) had a decrease in absences, 891 (21.8%) had about the same number of absences, and 1,875 (45.8%) had an increase in absences.

Of the 3,188 regularly participating students for whom both 2004-2005 and 2005-2006 data on discipline referrals were available, 533 (16.7%) had a decrease in the number of referrals they received, 1,514 (47.5%) had about the same number of discipline referrals, and 1,141 (35.8%) had an increase in referrals. (See Table 4 and Figure 4.)

Table 4: Changes in Absences and Referrals for 2005-2006 Regular Program Participants

	#	%
Absences		
Decreased	1,327	32.4%
Remained the Same	891	21.8%
Increased	1,875	45.8%
Total	**4,093**	**100.0%**
Discipline Referrals		
Decreased	533	16.7%
Remained the Same	1,514	47.5%
Increased	1,141	35.8%
Total	**3,188**	**100.0%**

Figure 4: Changes in Absences and Referrals for Regular Program Participants



Classroom Performance

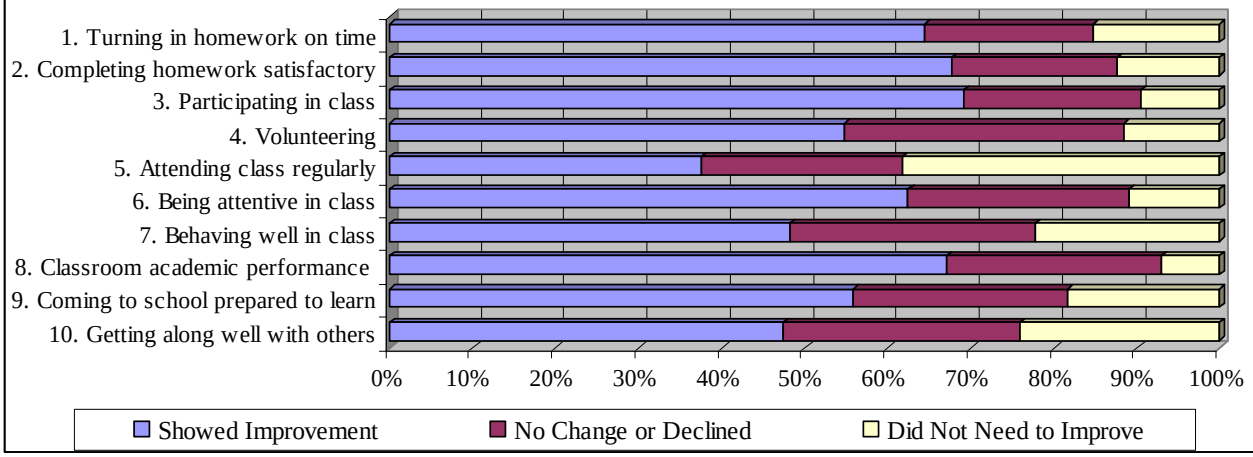
Classroom performance was measured using Teacher surveys administered to the students' regular school day teachers at the end of the year. Surveys were completed on all students who participated in programming during the 2005-2006 grant period. Surveys were administered to the teachers by the program staff and submitted to SWS for scoring and compilation. Possible responses to each item on the survey were: significant improvement, moderate improvement, slight improvement, no change, slight decline, moderate decline, and significant decline. A total of 8,883 surveys were completed; however, in some instances, teachers did not respond to a particular question or marked two responses, making the item invalid.

Of the 8,781 regularly participating students for whom survey data on the first question was available, 5,653 (64.4%) were reported as having improved, 1,798 (20.5%) were reported as having no change or having declined, and 1,330 (15.1%) were reported as not needing to improve on turning their homework in on time. Of the 8,790 regularly participating students for whom survey data on the second question was available, 5,956 (67.8%) were reported as having improved, 1,745 (19.9%) were reported as having no change or having declined, and 1,089 (12.4%) were reported as not needing to improve on completing their homework to the teachers' satisfaction. Of the 8,799 regularly participating students for whom survey data on the third question was available, 6,085 (69.2%) were reported as having improved, 1,881 (21.4%) were reported as having no change or having declined, and 833 (9.5%) were reported as not needing to improve on participating in class. Of the 8,794 regularly participating students for whom survey data on the fourth question was available, 4,814 (54.7%) were reported as having improved, 2,969 (33.8%) were reported as having no change or having declined, and 1,011 (11.5%) were reported as not needing to improve on volunteering. Of the 8,741 regularly participating students for whom survey data on the fifth question was available, 3,288 (37.6%) were reported as having improved, 2,120 (24.3%) were reported as having no change or having declined, and 3,333 (38.1%) were reported as not needing to improve on attending class regularly. (See Table 5 and Figure 5.)

Of the 8,792 regularly participating students for whom survey data on the sixth question was available, 5,496 (62.5%) were reported as having improved, 2,326 (26.5%) were reported as having no change or having declined, and 970 (11%) were reported as not needing to improve on being attentive in class. Of the 8,780 regularly participating students for whom survey data on the seventh question was available, 4,237 (48.3%) were reported as having improved, 2,599 (29.6%) were reported as having no change or having declined, and 1,944 (22.1%) were reported as not needing to improve on behaving well in class. Of the 8,786 regularly participating students for whom survey data on the eighth question was available, 5,900 (67.2%) were reported as having improved, 2,262 (25.9%) were reported as having no change or having declined, and 624 (7.1%) were reported as not needing to improve on having classroom academic performance that was satisfactory or better. Of the 8,785 regularly participating students for whom survey data on the ninth question was available, 4,910 (55.9%) were reported as having improved, 2,272 (25.9%) were reported as having no change or having declined, and 1,603 (18.2%) were reported as not needing to improve on coming to school ready and prepared to learn. Of the 8,789 regularly participating students for whom survey data on the tenth question was available, 4,176 (47.5%) were reported as having improved, 2,490 (28.3%) were reported as having no change or having declined, and 2,123 (24.2%) were reported as not needing to improve on getting along well with other students. (See Table 5 and Figure 5.)

Table 5: Improvement in Classroom Performance for Regular Program Participants						
	Showed Improvement		No Change or Declined		Did Not Need to Improve	
	#	%	#	%	#	%
1. Improved in turning in homework on time	5,653	64.4%	1,798	20.5%	1,330	15.1%
2. Improved in completing homework satisfactorily	5,956	67.8%	1,745	19.9%	1,089	12.4%
3. Improved in participating in class	6,085	69.2%	1,881	21.4%	833	9.5%
4. Improved in volunteering	4,814	54.7%	2,969	33.8%	1,011	11.5%
5. Improved in attending class regularly	3,288	37.6%	2,120	24.3%	3,333	38.1%
6. Improved in being attentive in class	5,496	62.5%	2,326	26.5%	970	11.0%
7. Improved in behaving well in class	4,237	48.3%	2,599	29.6%	1,944	22.1%
8. Had at least satisfactory classroom academic performance	5,900	67.2%	2,262	25.7%	624	7.1%
9. Improved in coming to school ready/prepared to learn	4,910	55.9%	2,272	25.9%	1,603	18.2%
10. Improved in getting along well with other students	4,176	47.5%	2,490	28.3%	2,123	24.2%

Figure 5: Improvement in Classroom Performance for Regularly Attending Students



Objective 2: 21st CCLC programs will offer a range of high-quality educational, developmental, and recreational services.

Information for sections 2.1 through 2.5 is based on Baseline and APR data for 2005-2006 entered by each program in the PPICS system administered by Learning Point.

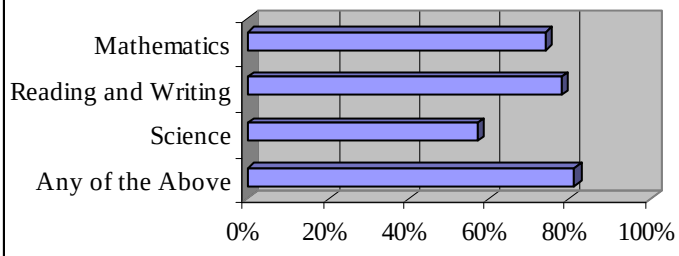
Objective 2.1 Core educational services. More than 85 percent of centers will offer high quality services in at least one core academic area, e.g., reading and literacy, mathematics, and science.

Of the 192 sites funded during the 2005-2006 grant period, 142 (74%) reported that they offered formal mathematics services; 150 (78.1%) offered reading and writing services; and 110 (57.3%) of the programs offered academic services in science. An examination of program elements offered in any of the core academic areas by all of the sites indicates that 81% of the sites offered services in any of the core academic areas. Therefore, the 21stCCLC program is close to meeting this standard. (See Table 6 and Figure 6.)

Table 6: Activity Subject Areas

	n=192 N	%
Mathematics	142	74.0%
Reading and Writing	150	78.1%
Science	110	57.3%
Any of the Above	156	81.3%

Figure 6: Activity Subject Areas



Objective 2.2 Enrichment and support activities More than 85 percent of centers will offer enrichment and support activities such as nutrition and health, art, music, technology, and recreation.

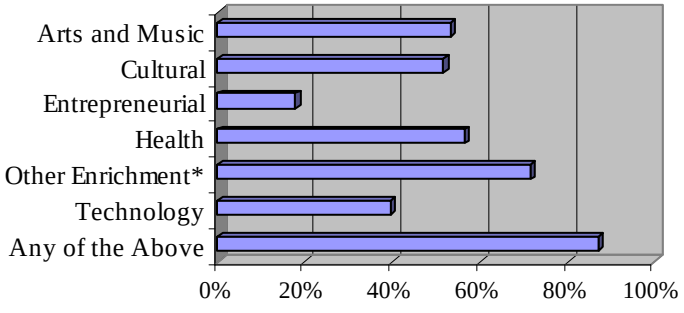
Of the 192 sites funded during the 2005-2006 grant period, 102 (53.1%) reported that they offered arts and music enrichment activities, 99 (51.6%) reported that they offered cultural activities, 34 (17.7%) offered entrepreneurial enrichment activities, 108 (56.3%) offered health activities, and 76 (39.6%) offered technology services. Other enrichment activities, a category that includes subjects such as youth development, violence prevention, character education and life skills, were offered by 137 (71.5%) of the sites. Eighty seven percent of the programs reported that they offered any of the above listed enrichment and support services. Hence, the program exceeded the standard of 85%. (See Table 7 and Figure 7.)

Table 7: Activity Subject Areas for Enrichment and Support Activities

	n=192 N	%
Arts and Music	102	53.1%
Cultural	99	51.6%
Entrepreneurial	34	17.7%
Health	108	56.3%
Other Enrichment*	137	71.4%
Technology	76	39.6%
Any of the Above	167	87.0%

*includes youth development, youth leadership, drug/violence prevention, counseling, character education, and life skills

Figure 7: Activity Subject Areas for Enrichment and Support Activities



Objective 2.3 Community involvement. Centers will establish and maintain partnerships within the community to increase levels of community collaboration.

Eighty six out of 90 programs (95.5%) and 186 out of 192 sites (96.9%) listed active community partners. There are 491 active partners for the state as a whole. This averages 5.71 partners per program and 2.64 partners per site. Of the 491 active partners, 62 had been active for two years or more, 312 had been active for about one year, and 117 had been active for less than one year. Centers in South Carolina have established and maintained active partnerships within the community. Hence, the 21stCCLC program has met this standard.

Objective 2.4 Services to parents and other adult community members. More than 85 percent of centers will offer services to parents, senior citizens, and other adult community members.

Data on services to parents and adult community members was available from three sources: The first source was the program's grant proposal, which contained projections for the estimated number of adults to be served at each site. The second source was the site report on the total number of adults they served. The third source was the site report of activities conducted with adults and the typical number of adults served.

According to their grant proposals, 151 sites planned to provide services to adults. Of those, 90 actually reported serving adults. Of the 41 sites that did not originally plan on providing services to adults, 15 sites reported providing services to adults during the grant period. A total of 105 sites reported that they provided services to adults.

Of the 105 sites that provided services to adults, 79 sites provided data on the total number of adults they served. These sites served a total of 3,390 adults. Of the 105 sites that provided services to adults, 85 sites provided data on the activities they provided to adults. These sites provided a total of 117 different activities to approximately 2,736 adults. Of the 117 activities provided to adults, 8 were career/job training events, 48 were events that promoted family literacy, 59 were events that promoted parental involvement, and two were other types of activities. Additional information from the P-PICS system and anecdotal information from centers indicates that a number of sites refer adults to other sites or community educational resources, rather than providing services directly. However, this information is not captured by the current data system. The 105 sites that reported serving adults constitute 54.6% of the 192 sites. Therefore, the standard for serving adults has not been met.

Objective 2.5 Extended hours. More than 75 percent of centers will offer services at least 15 hours a week on average and provide services when school is not in session, during the summer, and holidays.

All 192 sites provided services when school is not in session. Of these, 38 provided services before school, 191 provided services after school, five provided services on the weekend during the school year, 78 provided services on weekdays during the summer, and four sites provided services in the evening during the summer.

One hundred eight sites provided at least 15 hours of services per week during the school year and summer. Of these, 75 sites provided at least 15 hours of service per week during the school year and 63 provide at least 15 hours of service per week during the summer.

Overall, 107 out of 192 sites offered at least 15 hours of service that was provided when school was not in session (either before school, after school, or during the summer). These 107 sites constitute 55.7% of the total number of sites. Therefore the programs do not meet this standard.

Objective 3: 21st CCLC programs will serve children and community members with the greatest needs for expanded learning opportunities.

Objective 3.1 High-need communities. More than 80 percent of centers are located in high-poverty communities.

Indicators of high poverty status used for this analysis are Title I designation and a rate of 40% or more of the students eligible for free or reduced lunch. One hundred sixteen schools that are feeder schools for 21stCCLC programs are both Title I schools and have 40% or more of their students eligible for free and reduced lunch. An additional 82 schools that do not have Title I designation have 40% or more of their students who are eligible for free or reduced lunch. Eight schools meet neither of the poverty criteria. The status of one school is unknown. A total of 198 feeder schools (95.7%) out of 207 feeder schools meet both Title I and free or reduced lunch criteria. Hence, the centers exceed the objective related to high-need communities.

FINDINGS PART II: PREPARATION OF VARIABLES FOR IN-DEPTH ANALYSIS

In order to prepare the data for an in-depth analysis, several steps had to be taken. First was to identify the relationships between independent variables. This then led to the identification of factors and the clusters of cases within those factors. The third step was to clarify the dependent variables, making any changes necessary to begin the analysis. The fourth step was to analyze the factors against the dependent variables in order to identify the primary factor. The fifth step was to identify which variables were not having a perceptible impact, or contradictory impacts, on the dependent variable and to drop those from the analysis.

Relationships between Independent Variables

An initial review of relationships between the independent variables identified several relationships between variables from the same source. For example, several of the qualitative independent variables (those identified through site visits) had strong linear relationships to each other. Also, several of the independent variables obtained from the activities section of the PPICS system maintained by Learning Point had strong linear relationships to each other. For this reason, factor analyses were conducted to clarify these relationships. This process will be discussed further in the next section of this report.

Relationships between variables from different sources were also discovered. Many of these relationships regard the contributions made by the programs' partners and the size of the feeder school. These relationships were taken into consideration during the in-depth analysis; however, due to the complexity of evaluating the impact of these relationships on the dependent variables, they are not presented in Parts III and IV of the Findings. Instead, this report focuses on understanding the impact that the independent variables have on the dependent variables. Once these influences are fully understood, the relationships between the independent variables should be explored further.

Contributions to the Programs Made by Partners

The leadership role taken by the site coordinator is somewhat linearly related to the total amount of contributions received by the grantee's partners ($r=0.337$, $df=66$, $p=0.006$). This means that leaders that have more of a "community organizer" role are receiving more contributions from their partners. These contributions are concentrated in the areas of programming or activity-related services ($r=0.303$, $df=66$, $p=0.013$) and goods and materials ($r=0.353$, $df=66$, $p=0.004$).

Leadership effectiveness is somewhat linearly related to the number of partners that contributed volunteer staffing ($r=0.287$, $df=67$, $p=0.018$) and linearly related to the number of partners that contributed evaluation services ($r=0.407$, $df=67$, $p=0.001$). Therefore, site coordinators that were seen as being more effective had more partners that contributed volunteer staffing and evaluation services.

The amount of contributions received from partners is related to the number of activities provided in the areas of science (r=0.247, df=90, p=0.019), arts and music (r=0.300, df=90, p=0.004), entrepreneurial education (r=0.377, df=90, p=0.000), technology (r=0.291, df=90, p=0.005), cultural activities/social studies (r=0.279, df=90, p=0.008), health/nutrition (r=0.455, df=90, p=0.000), and other enrichment (r=0.391, df=90, p=0.000). Therefore, programs that receive more contributions from their partners are more able to provide activities in areas other than the standard academic instruction. It must be noted that programs that have more partners that provide contributions in the areas of programming and activity-related services have more activities in the areas of reading and writing (r=0.363, df=90, p=0.000), mathematics (r=0.361, df=90, p=0.000), entrepreneurial education (r=0.336, df=90, p=0.001), health/nutrition (r=0.483, df=90, p=0.000), and other enrichment (r=0.523, df=90, p=0.000). In addition, programs that have more partners that provide contributions in the areas of paid and volunteer staff have more activities in the areas of reading and writing (r=0.328, df=90, p=0.002 and r=0.411, df=90, p=0.000, respectively), mathematics (r=0.382, df=90, p=0.000 and r=0.378, df=90, p=0.000, respectively), science (r=0.395, df=90, p=0.000 and r=0.280, df=90, p=0.007, respectively), health/nutrition (r=0.495, df=90, p=0.000 and r=0.294, df=90, p=0.005, respectively), and other enrichment activities (r=0.382, df=90, p=0.000 and r=0.263, df=90, p=0.012, respectively). Programs that have more partners that provide contributions in the areas of goods and materials have more activities in the areas of reading and writing (r=0.311, df=90, p=0.003), mathematics (r=0.309, df=90, p=0.003), entrepreneurial education (r=0.374, df=90, p=0.000), health/nutrition (r=0.371, df=90, p=0.000), and other enrichment (r=0.362, df=90, p=0.000). Therefore, it appears that while more contributions from partners means more enrichment and non-academic subject area activities, the more partners a program has, the more activities they are able to provide to their participants in all subjects.

Size of Feeder Schools

A feeder school is the school that students in the program site attend during the regular day. Each site must have at least one feeder school. The size of the feeder schools at each site is considered to be the total number of students served by the feeder school. This variable is somewhat linearly related to the amount of 21st CCLC grant funds received per site (r=0.372, df=87, p=0.000). The amount of funds received per site was calculated by dividing the total number of grant funds received during the current year by the total number of active sites for each program. Therefore, sites that have larger feeder schools receive more funding. Feeder school size is also related to the amount of funding per student (r=0.449, df=86, p=0.000). The amount of funding per student was calculated by dividing the amount of funding per site by the number of students the program served as reported in the PPICS system maintained by Learning Point. This means that sites that serve larger schools receive more grant funds overall and receive more grant funds per student. It is important to note that feeder schools located in urban areas serve a significantly higher number of students than do feeder schools located in rural areas (t=1.98, df=85, p=0.05). The feeder schools located in urban areas serve an average of 710.88 students (n=40, SD=428.14), whereas feeder schools located in rural areas serve an average of 544.77 students (n=47, SD=356.37).

The size of the feeder school is also related to the number of activities provided by the site. Programs located in sites with larger feeder schools offer more activities in the areas of reading and writing (r=0.217, df=85, p=0.046), entrepreneurship education (r=0.371, df=85, p=0.000), technology (r=0.242, df=85, p=0.026) and culture/social studies (r=0.248, df=85, p=0.22).

Identification of Factors and Clusters

Principle Components Factor Analyses were conducted to clarify relationships identified in the previous stage of this overall analysis. These analyses identified common threads of ideas, or components, between the independent variables. These components, or factors, were then used to represent several independent variables. Using the factors in this way allowed for a more efficient in-depth analysis and a clearer view of the impact of these variables on the dependent variables. Factor analyses were conducted on independent variables from two sources. The first source was the qualitative variables identified through site visits. The second source was the activities section of the PPICS system maintained by Learning Point.

Factor Analysis of Qualitative Independent Variables

A factor analysis conducted on all ordinal and continuous qualitative independent variables initially identified four components that explained most of the variance between the variables. Upon closer examination, however, three variables were identified which did not fit appropriately with the other variables. Two of these, the style of curriculum used and the level of staff certification, were removed from the factor analysis using the "Measure of Sampling Adequacy" statistic found in the Anti-Image Correlation Matrix. This statistic, which was smaller than recommended for both variables, represents the extent to which a given variable fits in with the structure of the other variables. The third variable, number of computer hours, was removed from the factor analysis due to a smaller than recommended "Communality" statistic, which indicates the amount of variance in the variable accounted for by the components identified in the factor solution.

After removing the three variables, the factor solution was re-calculated. The new solution identified three components which explained most of the variance between the variables. The new model was found to be statistically appropriate for the variables in the solution. This means that there is a high proportion of variance in the variables which is caused by common underlying factors (KMO Measure of Sampling Adequacy = 0.840) and that significant relationships exist between the variables (Bartlett's Test of Sphericity = 260.148, df=45, p=0.000).

Component 1

The first component identified in the factor solution included the variables "leadership role," "enrichment," and "program approach." The leadership role variable represents a continuum where the site coordinator is rated as a community organizer if they stress bringing in community resources or promote students to do service learning, volunteer work, etc. to where the site coordinator is rated as an educator if they largely emphasize academic instruction. The enrichment variable represents the amount and variety of enrichment activities. The program approach variable represents a continuum where the program is rated as holistic if they develop social, emotional, physical and cognitive areas to where the program is rated as pedagogical if the program's efforts focus mainly on academic instruction. The common thread identified in these variables is their relation to decisions made by the program staff in regards to where the program would focus its efforts. Therefore, this component was named the "Site Policy" factor.

Component 2

The second component identified in the factor solution included the variables "adjustment to the learning environment," "effectiveness of behavior management," "school involvement," "staff experience" and "staff morale". The adjustment to the learning environment variable represents the effort made by the staff and their success in promoting positive student attitudes toward school and learning. The "effectiveness of behavior management" variable represents the effectiveness as perceived by parents, staff, students, and the evaluation team. The "school involvement" variable represents the extent to which the program receives support from the school administrators and has access to the school's resources. The "staff experience" variable represents the length of time staff have worked with the program. The "staff morale" variable represents the perceived morale (i.e. energy level and attitudes) of the program staff. The common thread identified in these variables is their relation to the atmosphere and working relationships of the program's stakeholders. Therefore, this component was named the "Internal Environment" factor.

Component 3

The third component identified in the factor solution included the variables "perception of parental support" and "leadership effectiveness". The perception of parental support variable represents the teacher and program staff's perception of how much support parents provide to the program and to the students' involvement in the program. The "leadership effectiveness" variable represents the perceptions of the staff, parents, and evaluation team regarding how well the site coordinator manages resources, provides support for staff, communicates, sets direction for the program, and their attitudes towards parents and staff. The common thread in these variables could not be identified with the data available. Furthermore, additional analyses of the "parental support" and "leadership effectiveness" variables produced conflicting results. These conflicting results will be discussed further in the "Variables Dropped from the Analysis" section of this part of the findings. For these reasons, this component was not used in this analysis.

Factor Analysis of Independent Variables Related to Program Activities

A factor analysis conducted on the independent variables related to the program activities initially identified two components that explained most of the variance between the variables. However, two of the variables could fit into either component and none of the remaining variables fit into the second. Upon closer examination, it was discovered that two of the variables, "entrepreneurship education" and "technology," were being offered by very few programs, thereby skewing the analysis. Therefore, these two variables were removed from the factor analysis.

After removing the two variables, the factor solution was re-calculated. The new solution identified one component which explained most of the variance between the variables. The new model was found to be statistically appropriate for the variables in the solution. This means that there is a high proportion of variance in the variables which is caused by the common underlying factor (KMO Measure of Sampling Adequacy = 0.753) and that significant relationships exist between the variables (Bartlett's Test of Sphericity = 391.15, df=15, p=0.000).

The component identified in the factor solution included the variables "reading/writing," "mathematics," "science," "arts/music," "cultural activities/social studies," "health/nutrition," and "other enrichment." Each variable represents the percent that each activity was provided. These variables were calculated by dividing the number of instances of each type of activity by the total number of activities reported. This component was named the "Activity Subject Area" factor.

Cluster Analysis on the Site Policy Factor

A cluster analysis was conducted on the Site Policy Factor to identify the different types of site policies and to classify each site under one of the clusters. The cluster analysis identified three different types of site policies.

The first cluster (n=12) was named the Child Development Cluster. The average score on the "leadership role" variable for sites in this cluster is 5.50 (on a scale of 1 to 7), meaning that the leaders invite broad involvement from the community or promote service learning and volunteer work. The average score on the "enrichment" variable is 12.25 (on a scale of 1 to 17), meaning that the sites have a larger number and greater variety of enrichment activities than sites in other clusters. The average score on the "program approach" variable is 6.21 (on a scale of 1 to 7), meaning that the sites use a more holistic program approach, attempting to develop the students' social, emotional, physical and cognitive areas.

The second cluster (n=34) was named the Mixed Cluster. The average score on the "leadership role" variable for sites in this cluster is 3.99 (on a scale of 1 to 7), meaning that the leaders are both community- and academically-oriented. The average score on the "enrichment" variable is 7.49 (on a scale of 1 to 17), meaning that the sites have about the average number and variety of enrichment activities. The average score on the "program approach" variable is 4.57 (on a scale of 1 to 7), meaning that the sites use a mix of both the academic and holistic approaches.

The third cluster (n=21) was named the Pedagogical Cluster. The average score on the "leadership role" variable for sites in this cluster is 2.37 (on a scale of 1 to 7), meaning that the leaders are mostly focused on academics. The average score on the "enrichment" variable is 2.31 (on a scale of 1 to 17), meaning that the sites have the fewest number and variety of enrichment activities. The average score on the "program approach" variable is 2.27 (on a scale of 1 to 7), meaning that the sites are focused mostly on developing the students' academic skills.

Cluster Analysis on the Internal Environment Factor

A cluster analysis was conducted on the Internal Environment Factor to identify the different types of internal environments and to classify each site under one of the clusters. The cluster analysis identified three different types of internal environments.

The first cluster (n=2) was named the Deprived Cluster. The average score on the "adjustment to the learning environment" variable for sites in this cluster is 5.75 (on a scale of 2 to 14), meaning that the program does not attempt to promote positive student attitudes toward school and learning and/or is not successful at doing so. The average score on the "effectiveness of

behavior management" variable is 3.63 (on a scale of 1 to 7), meaning that the sites are only somewhat effective at managing behavior. The average score on the "school involvement" variable is 2.5 (on a scale of 1 to 7), meaning that the site has only limited support from the feeder school. The average score on the "staff experience" variable is 2.0 (on a scale of 1 to 7), meaning that almost all of the staff at the site are new this year. The average score on the "staff morale" variable is 2.5 (on a scale of 1 to 7), meaning that most of the staff at the site have negative or hopeless attitudes.

The second cluster (n=26) was named the Average Cluster. The average score on the "adjustment to the learning environment" variable for sites in this cluster is 9.42 (on a scale of 2 to 14), meaning that the program somewhat attempts to promote positive student attitudes toward school and learning is somewhat successful at doing so. The average score on the "effectiveness of behavior management" variable is 5.28 (on a scale of 1 to 7), meaning that the site is fairly effective at managing behavior. The average score on the "school involvement" variable is 5.21 (on a scale of 1 to 7), meaning that the site has an average amount of support from the feeder school. The average score on the "staff experience" variable is 5.02 (on a scale of 1 to 7), meaning that the staff has only slightly more experienced staff than new staff. The average score on the "staff morale" variable is 4.71 (on a scale of 1 to 7), meaning that many of the staff have positive attitudes, with only a few negative.

The third cluster (n=32) was named the Positive Cluster. The average score on the "adjustment to the learning environment" variable for sites in this cluster is 11.89 (on a scale of 2 to 14), meaning that the program consciously attempts to promote positive student attitudes toward school and learning and is successful at doing so. The average score on the "effectiveness of behavior management" variable is 5.77 (on a scale of 1 to 7), meaning that the site is effective at managing behavior. The average score on the "school involvement" variable is 6.2 (on a scale of 1 to 7), meaning that the site has a good amount of support from the feeder school. The average score on the "staff experience" variable is 5.48 (on a scale of 1 to 7), meaning that the staff has more experienced staff than new staff. The average score on the "staff morale" variable is 6.06 (on a scale of 1 to 7), meaning that the majority of staff have high energy and positive attitudes.

Cluster Analysis on the Activity Subject Areas Factor

A cluster analysis was conducted on the Activity Subject Areas Factor to identify the different types of emphases given to the subject areas and to classify each site under one of the clusters. The cluster analysis identified three different types of activity subject areas.

The first cluster (n=19) was named the Language Arts and Math Cluster. The average score on the "reading/writing" variable for sites in this cluster is 0.46 (on a scale of 0 to 1.0), meaning that 46% of the activities provided by these sites are in reading and writing. The average score on the "mathematics" variable for sites in this cluster is 0.43 (on a scale of 0 to 1.0), meaning that 43% of the activities provided by these sites are in mathematics. These sites only provide minimal amounts of other activities, including science (4% of the activities provided), arts and music (3% of the activities provided), cultural activities/social studies (1% of the activities provided), and health/nutrition (1% of the activities provided).

The second cluster (n=20) was named the Enrichment Cluster. The average score on the "other enrichment" variable for sites in this cluster is 0.41 (on a scale of 0 to 1.0), meaning that 41% of the activities provided by these sites are other enrichment activities. The average score on the "arts and music" variable for sites in this cluster is 0.11 (on a scale of 0 to 1.0), meaning that 11% of the activities provided by these sites are in arts and music. The average score on the "health/nutrition" variable for sites in this cluster is 0.13 (on a scale of 0 to 1.0), meaning that 13% of the activities provided by these sites are in health or nutrition. The average score on the "reading/writing" variable for sites in this cluster is 0.13 (on a scale of 0 to 1.0), meaning that 13% of the activities provided by these sites are in reading and writing. The average score on the "mathematics" variable for sites in this cluster is 0.12 (on a scale of 0 to 1.0), meaning that 12% of the activities provided by these sites are in mathematics. Other activities provided by these sites are science (4% of the activities provided) and cultural activities/social studies (2% of the activities provided).

The third cluster (n=55) was named the Mixed Cluster. Sites in this cluster provided a mix of all activities, with averages of 22% in reading/writing, 17% in mathematics, 13% in science, 8% in arts and music, 14% in cultural activities/social studies, 10% in health/nutrition, and 10% in other enrichment activities.

Explanation of Dependent Variables

Outcomes data for this analysis included student-level data on ELA, Math, Science and Social Studies PACT scores, absences from school, discipline referrals, grades in ELA, math and science, and classroom performance. This data was used to develop the dependent variables. Descriptive data for the outcome and dependent variables can be found in the "Descriptive Data on Variables Included in the Analysis" section of this part of the findings..

The performance indicators for PACT scores are the differences between each student's 2005 and 2006 PACT scores for each subject. PACT scores were obtained from both the individual sites and from the SC Department of Education. The performance levels for the PACT test are coded as follows: Below Basic = 0, Basic = 1, Proficient = 2, and Advanced = 3. For purposes of the analysis, "difference" variables were created for each subject by subtracting the 2005 score from the 2006 score for each student in each subject area. Therefore, a decrease in the "difference variable" represents a decrease in the students' performance level, whereas an increase represents an increase in scores. An independent samples t-test was conducted to determine if significant differences existed in the means for these variables for students who regularly participated in the program (present 30 days or more) against those who did not. This analysis showed that there were no differences between the two groups. Therefore, all students who participated in the program were included in the analysis.

The performance indicators for behavior are the difference between each student's absences and referrals in the 2004-2005 academic year and the 2005-2006 academic year. Data on student absences and referrals were obtained from both the individual sites and from the SC Department of Education. For purposes of the analysis, "difference" variables were created for both absences and referrals by subtracting the total number of absences and referrals in 2004-2005 from the total number of absences and referrals in 2005-2006 for each student. Therefore, a decrease in the "difference variable" represents a decrease in the number of absences or referrals, whereas an

increase represents an increase in absences or referrals. An independent samples t-test was conducted to determine if significant differences existed in the means for these variables for students who regularly participated in the program (present 30 days or more) against those who did not. This analysis showed that there were no differences between the two groups. Therefore, all students who participated in the program were included in the analysis.

The performance indicators for grades in school are the difference between each student's first marking period grade and last marking period grade of the 2005-2006 academic year in English, math, and science. Grades in school were obtained from the individual sites. Only those grades on a 1 to 100 grading scale were used. Grades were provided that were on other grading scales; however, the variety of these scales made analysis difficult. A method has been devised to account for these differences for the 2006-2007 report. For purposes of the analysis, "difference" variables were created for each subject by subtracting the first marking period grade from the last marking period grade for each student in each subject. Therefore, a decrease in the "difference variable" represents a decrease in the students' grades, whereas an increase represents an increase in grades. An independent samples t-test was conducted to determine if significant differences existed in the means for these variables for students who regularly participated in the program (present 30 days or more) against those who did not. This analysis showed that there were no differences between the two groups. Therefore, all students who participated in the program were included in the analysis.

The performance indicator for classroom performance is the regular school day teachers' perception of changes that occurred in the students' behavior and performance in the classroom. This data was obtained using a teacher survey administered by the program staff. One survey was completed for each student who regularly participated in the program. The survey had 10 questions, which asked teachers to rate the student's improvement on a scale of 1 to 7, or note if they did not need to improve. For purposes of the analysis, an "average improvement" variable was created by dividing the total of all improvement scales by the number of items on which the student needed to improve upon. The range of possible scores for this variable is from 1 to 7. In addition, a "did not need to improve" variable was created by adding together the total number of items on which the student did not need to improve. The range of possible scores for this variable is from 0 to 10. An independent samples t-test was conducted to determine if significant differences existed in the means for these variables for students who regularly participated in the program (present 30 days or more) against those who did not. This analysis showed that there were differences between the two groups. Students who regularly participated in the program had a higher average improvement (mean difference=0.45, t=6.09, df=3223, p=0.000) and had a higher number of items on which they did not need to improve (mean difference=0.83, t=15.18, df=2881.55, p=0.000). Although there were differences in these variables, all students who participated in the program were included in the analysis so that analyses with these dependent variables would be comparable to analyses with the other dependent variables. It must be noted that the programs were instructed to administer the teacher surveys to only those students who regularly attended the program; however, 7.4% of the completed surveys were for students who attended fewer than 30 days. The small percentage of students in this group may have attributed to some of the significant differences found in Parts II and IV of the findings in this report.

Designation of Primary Factor

Once the dependent variables were created, analyses were conducted to determine which of the factors (discussed above) accounted for the greatest proportion of variation in the dependent variables. The analyses used to identify the proportion of variation in each dependent variable were ANOVA and Tests for Linearity. The ANOVA and Linearity tests determined what, if any, kind of significant relationship existed between the factor and the dependent variable. For those significant relationships that were identified as being linear, the R Squared statistic was used to identify the proportion of variance. For those significant relationships that were identified as being non-linear, the Eta Squared statistic was used to identify the proportion of variance. Once these proportions were identified, the factor which appeared to cause the greatest variation in most of the dependent variables was designated the "primary factor."

Variation Due to the Site Policy Factor

The Site Policy factor has a non-linear relationship with the difference in students' English/Language Arts (ELA) PACT scores (F=8.88, df=1, p=0.003) and a linear relationship with the difference in students' Science PACT scores (F=6.33, df=1, p=0.000). Therefore, this factor accounts for 0.7% of the variance in students' difference in ELA scores (Eta Squared=0.007) and 0.4% of the variance in students' difference in science scores (R Squared=0.004). (See Table 8 and Figure 8.)

The Site Policy factor has non-linear relationships with the difference in students' absences from school (F=15.22, df=1, p=0.000) and discipline referrals (F=16.05, df=1, p=0.000). Therefore, this factor accounts for 5.9% of the variance in students' change in the number of absences from school (Eta Squared=0.059) and 1.4% of the variance in students' change in the number of discipline referrals (Eta Squared=0.014). (See Table 8 and Figure 8.)

The Site Policy factor has non-linear relationships with the difference in students' ELA grades in school (F=4.79, df=1, p=0.029) and math grades in school (F=3.96, df=1, p=0.047). Therefore, this factor accounts for 0.3% of the variance in students' difference in ELA grades (Eta Squared=0.003) and 0.2% of the variance in students' difference in math grades (Eta Squared=0.002). (See Table 8 and Figure 8.)

The Site Policy factor has linear relationships with students' average improvement in classroom performance (F=35.62, df=1, p=0.000) and number of items regarding classroom performance on which they did not need to improve (F=23.19, df=1, p=0.000). Therefore, this factor accounts for 1.4% of the variance in students' average improvement in classroom performance (R Squared=0.059) and 0.6% of the variance in the number of items regarding classroom performance on which the students did not need to improve upon (R Squared=0.006). (See Table 8)

Table 8: Proportion of Variation Accounted for by the Site Policy Factor				
	F	df	p	Eta Squared or R Squared
PACT Scores				
ELA	8.88	1	0.003	0.007
Math	2.10	2	0.123	
Science	6.33	1	0.012	0.004
Social Studies	0.25	2	0.779	
Behavior				
Absences	15.22	1	0.000	0.059
Referrals	16.05	1	0.000	0.014
Grades				
ELA	4.79	1	0.029	0.003
Math	3.96	1	0.047	0.002
Science	0.68	2	0.505	
Classroom Performance				
Average Improvement	35.62	1	0.000	0.014
Did not Need to Improve	23.19	1	0.000	0.006

Variation Due to the Internal Environment Factor

The Internal Environment factor has non-linear relationships with the difference in students' Math PACT scores (F=7.61, df=1, p=0.006) and the difference in students' Social Studies PACT scores (F=19.05, df=1, p=0.000). Therefore, this factor accounts for 0.7% of the variance in students' difference in math scores (Eta Squared=0.007) and 1.4% of the variance in students' difference in social studies scores (Eta Squared=0.014). (See Table 9 and Figure 9.)

The Internal Environment factor has linear relationships with the difference in students' absences from school (F=8.95, df=1, p=0.003) and discipline referrals (F=5.36, df=1, p=0.021). Therefore, this factor accounts for 0.8% of the variance in students' change in the number of absences from school (R Squared=0.008) and 0.5% of the variance in students' change in the number of discipline referrals (R Squared=0.005). (See Table 9 and Figure 9.)

The Internal Environment factor has non-linear relationships with the difference in students' ELA grades in school (F=5.32, df=1, p=0.021) and science grades in school (F=5.42, df=1, p=0.020). Therefore, this factor accounts for 0.3% of the variance in students' difference in ELA grades (Eta Squared=0.003) and 0.4% of the variance in students' difference in science grades (Eta Squared=0.004). (See Table 9 and Figure 9.)

The Internal Environment factor has linear relationships with students' average improvement in classroom performance (F=18.98, df=1, p=0.000) and number of items regarding classroom performance on which they did not need to improve (F=7.97, df=1, p=0.005). Therefore, this factor accounts for 0.9% of the variance in students' average improvement in classroom performance (R Squared=0.009) and 0.2% of the variance in the number of items regarding classroom performance on which the students did not need to improve upon (R Squared=0.002). (See Table 9.)

Table 9: Proportion of Variation Accounted for by the Internal Environment Factor				
	F	df	p	Eta Squared or R Squared
PACT Scores				
ELA	1.35	2	0.261	
Math	7.61	1	0.006	0.007
Science	0.88	2	0.414	
Social Studies	19.05	1	0.000	0.014
Behavior				
Absences	8.95	1	0.003	0.008
Referrals	5.36	1	0.021	0.005
Grades				
ELA	5.32	1	0.021	0.003
Math	0.18	2	0.838	
Science	5.42	1	0.020	0.004
Classroom Performance				
Average Improvement	18.98	1	0.000	0.009
Did not Need to Improve	7.97	1	0.005	0.002

Variation Due to the Activity Subject Area Factor

The Activity Subject Area factor has a non-linear relationship with the difference in students' Social Studies PACT scores (F=8.39, df=1, p=0.004). Therefore, this factor accounts for 0.7% of the variance in students' change in Social Studies scores (Eta Squared=0.007). (See Table 10 and Figure 10.)

The Activity Subject Area factor has non-linear relationships with the difference in students' absences from school (F=5.04, df=1, p=0.025) and discipline referrals (F=23.77, df=1, p=0.000). Therefore, this factor accounts for 0.8% of the variance in students' change in the number of absences from school (Eta Squared=0.008) and 1.5% of the variance in students' change in the number of discipline referrals (Eta Squared=0.015). (See Table 10 and Figure 10.)

The Activity Subject Area factor has non-linear relationships with the difference in students' ELA grades in school (F=6.39, df=1, p=0.012), math grades (F=5.95, df=1, p=0.015), and science grades (F=12.32, df=1, p=0.000). Therefore, this factor accounts for 0.2% of the variance in students' difference in ELA grades (Eta Squared=0.002), 0.2% of the variance in students' difference in math grades (Eta Squared=0.002), and 0.8% of the variance in students' difference in science grades (Eta Squared=0.008). (See Table 10 and Figure 10.)

The Activity Subject Area factor has non-linear relationships with students' average improvement in classroom performance (F=32.35, df=1, p=0.000) and number of items regarding classroom performance on which they did not need to improve (F=14.55, df=1, p=0.000). Therefore, this factor accounts for 1.6% of the variance in students' average improvement in classroom performance (R Squared=0.016) and 0.3% of the variance in the number of items regarding classroom performance on which the students did not need to improve upon (R Squared=0.003). (See Table 10.)

Table 10: Proportion of Variation Accounted for by the Activity Subject Area Factor				
	F	df	p	Eta Squared or R Squared
PACT Scores				
ELA	3.80	1	0.051	
Math	0.01	2	0.992	
Science	2.03	2	0.132	
Social Studies	8.39	1	0.004	0.007
Behavior				
Absences	5.04	1	0.025	0.008
Referrals	23.77	1	0.000	0.015
Grades				
ELA	6.39	1	0.012	0.002
Math	5.95	1	0.015	0.002
Science	12.32	1	0.000	0.008
Classroom Performance				
Average Improvement	32.35	1	0.000	0.016
Did not Need to Improve	14.55	1	0.000	0.003

Selection of the Factor Accounting for the Greatest Variation

The Site Policy Factor accounts for the greatest amount of variation in four of the eleven dependent variables. These variables are ELA PACT scores, Science PACT scores, absences, and did not need to improve classroom performance. The Internal Environment Factor accounts for the greatest variation in two of the eleven dependent variables. These variables are Math PACT scores and Social Studies PACT scores. The Activity Subject Area Factor also accounts for the greatest variation in three of the eleven dependent variables. These variables are discipline referrals, science grades in school, and average improvement in classroom performance. For the remaining two dependent variables, ELA grades in school and math grades in school, two of the factors accounted for the greatest amount of variation. These two factors were the Site Policy and the Internal Environment factors and the Site Policy and the Activity Subject Area factors, respectively.

Independent Variables Excluded from the Analysis

After beginning the analysis, four of the independent variables were found to have contradictory or inconclusive results. For these reasons, these variables were not included in the remainder of the analysis. Instead, some of these findings are discussed briefly in this section to lead to further analysis in the future.

Leadership Effectiveness

The variable "leadership effectiveness" was obtained from the qualitative site visits. This variable represents the perceived effectiveness of the site coordinator in providing resources, providing support for staff, communicating well, setting direction for the program, and having a

positive and encouraging attitude toward staff and parents. Illogical results occurred from the analysis of the impact of leadership effectiveness on the dependent variables. In some cases, the more effective a leader was perceived to be, the worse the desired outcomes of the program. In addition, these findings were contradictory to findings from the literature.

In order to fully understand these relationships, further study should be conducted to identify any underlying relationships that this variable has with other independent or extraneous variables. Furthermore, the definition of and method for obtaining this variable should be clarified. As a result of the aforementioned findings, the leadership effectiveness variable was excluded from the in-depth analysis.

Parental Support

The variable "parental support" was obtained from the qualitative site visits. This variable represents the teacher and program staff perceptions of parental support of the program. The analysis of the impact of parental on the dependent variables showed illogical results, in that in some cases, the more supportive the parents were perceived to be, the worse the desired outcomes of the program. In addition, these findings were contradictory to findings from the literature.

In order to fully understand these relationships, further study should be conducted to identify any underlying relationships that this variable has with other independent or extraneous variables. Furthermore, the definition of and method for obtaining this variable should be clarified. As a result of the aforementioned findings, the parental support variable was excluded from the in-depth analysis. It must also be noted that a parent survey has been planned for the 2006-2007 grant period which will assist the research team in identifying the level of parental support.

Character Education

The variable "character education" was obtained from the qualitative site visits. This variable represents whether or not the evaluation team noted the existence of a character education program at the site. The analysis of the impact of character education on the dependent variables showed contradictory results. In some cases, the existence of a character education program improved the dependent variable, and in other cases, the existence of a character education program was detrimental to the dependent variable.

Independent samples t-tests were conducted to compare the average change in PACT scores for those students who participated in programs that had character education programs to the average change for those students who participated in programs that did not have character education programs. These analysis indicated that students who participate in programs that have character education programs experience decreases in their ELA and math scores (mean=-0.065, n=495, SD=0.58 and mean=-0.053, n=495, SD=0.68, respectively), whereas students who participate in programs that do not have character education programs experience increases in the ELA and math scores (mean=0.051, n=943, SD=0.61 and mean=0.023, n=945, SD=0.64, respectively). This difference is statistically significant (t=3.46. df=1436, p=0.001). These results indicate that having a character education program may be detrimental to the PACT scores of students in the program.

On the other hand, an analysis of changes in behavior indicates that experiencing a character education program may improve students' behavior. An independent samples t-tests was conducted to compare the average change in behavior for those students who participated in programs that had character education programs to the average change for those students who participated in programs that did not have character education programs. These analysis indicated that students who participate in programs that have character education programs experience a smaller increase in the number of discipline referrals they receive (mean=0.38, n=599, SD=2.53) than students who participate in programs that do not have character education programs (mean=0.89, n=515, SD=4.20). This difference is statistically significant (t=-5.98. df=1237, p=0.000).

In order to clarify these relationships, further study should be conducted to identify any underlying relationships that this variable has with other independent or extraneous variables. Furthermore, the definition of and method for obtaining this variable should be clarified. As a result of the aforementioned contradictions, the character education variable was excluded from the in-depth analysis.

Teaching Method

The variable "teaching method" was obtained from the qualitative site visits. This variable is a continuum where one side of the scale represents teaching that is highly creative and the other side represents teaching that is rote or drill. The analysis of the impact of the teaching method on the dependent variables indicated that this variable had no direct influence on the outcomes of the program. However, findings from the literature indicate the possibility of a connection. Therefore, the definition of and method for obtaining this variable should be clarified. As a result of the aforementioned findings, the teaching method variable was excluded from the in-depth analysis.

Variables Without Significant Relationships

Several of the independent and extraneous variables that were included in the data set for analysis were found to have no statistically significant relationships with the dependent variables. These variables are: the number of hours of computer time scheduled, the number of adults served by the program, the amount of funding received per site (on average), number of other funding sources for the site, number of hours of operation in the school year and summer, amount of contributions from partners, number of partners who contributed programming, number of partners who contributed paid staff, number of partners who contributed volunteer staff, number of partners who contributed goods or materials, number of partners who contributed funds or fundraising activities, the number of partners who provided evaluation services, whether or not the site received Title I funding, the percent of the feeder school population that receives free or reduced lunch, and the total number of students who attend the feeder school. Although these variables were found to have no significant impact on the dependent variables, the literature supports the hypothesis that some of these variables may influence the desired outcomes of students in the program. Furthermore, the analysis of relationship between independent variables (discussed above) indicates some relationships between funding and activities provided by the programs. Therefore, some of these variables that do not have direct significant relationships with the dependent variables may have a secondary or tertiary impact.

Descriptive Data on Variables Included in the Analysis

Description of Dependent Variables

For elementary school students, the average change in ELA PACT scores from 2005 to 2006 was a decrease of 0.05 points (n=1126, SD=0.65), the average change in Math PACT scores was an increase of 0.07 points (n=1128, SD=0.69), the average change in Science PACT scores was a decrease of 0.03 points (n=1126, SD=0.70), and the average change in Social Studies PACT scores was a decrease of 0.07 points. For middle school students, the average change in ELA PACT scores from 2005 to 2006 was an increase of 0.05 points (n=931, SD=0.56), the average change in Math PACT scores was a decrease of 0.08 points (n=933, SD=0.61), the average change in Science PACT scores was a decrease of 0.01 points (n=918, SD=0.59) and the average change in Social Studies PACT scores was a decrease of 0.01 points (n=917, SD=0.66). The average change in PACT scores was not applicable to high school students because they do not take the PACT tests. For both elementary and middle school students, the average change in ELA PACT scores from 2005 to 2006 was a decrease of 0.01 (n=2057, SD=0.61), there was no change in Math PACT scores (mean=0.00, n=2061, SD=0.66), the average change in Science PACT scores was a decrease of 0.02 points (n=2044, SD=0.65), and the average change in Social Studies PACT scores was a decrease of 0.04 points (n=2023, SD=0.71).

The average difference between 2004-2005 and 2005-2006 absences for elementary school students was an increase of 1.59 days (n=1180, SD=6.92), the average difference for middle school students was an increase of 1.99 days (n=609, SD=6.61), and the average difference for high school students was an increase of 1.47 days (n=32, SD=18.65). The overall average difference in absences for elementary, middle, and high school students was an increase of 1.72 days (n=1821, SD=7.18). The average difference in 2004-2005 and 2005-2006 referrals for elementary school students was an increase of 0.75 referrals (n=0.75, SD=3.12) , the average difference for middle school students was an increase of 0.98 referrals (n=535, SD=3.69), and the average difference for high school students was a decrease of 0.91 referrals (n=33, SD=2.02). The overall average difference in referrals for elementary, middle, and high school students was an increase of 0.79 referrals (n=1607, SD=3.31).

For elementary school students, the average difference in ELA grades from the first to the last grading period was a decrease of 0.06 points (n=1979, SD=20.28), the average difference in math grades was a decrease of 0.96 points (n=1973, SD=9.45), the average difference in science grades was an increase of 0.06 points (n=1837, SD=10.79). For middle school students, the average difference in ELA grades was an increase of 0.79 points (SD=12.17), the average difference in math grades was an increase of 0.33 points (n=938, SD=11.53), the average difference in science grades was an increase of 0.48 points (n=859, SD=12.58). For high school students, the average difference in ELA grades was an increase of 0.69 points (n=13, SD=9.64) and the average difference in math grades was a decrease of 0.19 points (n=17, SD=21.47). For elementary, middle and high school students, the average difference in ELA grades was an increase of 0.22 points (n=2929, SD=18.05), the average difference in math grades was a decrease of 0.54 points (n=2928, SD= 10.28), and the average difference in science grades was an increase of 0.20 points (n=2696, SD=11.39).

For elementary school students, the average improvement in classroom performance was an increase of 5.22 points (n=2477, SD=1.09) and the average number of items that did not need to be improved upon was 1.12 (n=3540, SD=2.19). For middle school students, the average improvement in classroom performance was an increase of 5.28 points (n=714, SD=1.11) and the average number of items that did not need to be improved upon was 0.71 (n=1316, SD=1.83). For high school students, the average improvement in classroom performance was an increase of 5.05 points (n=34, SD=1.32) and the average number of items that did not need to be improved upon was 1.57 (n=46, SD=2.09). For elementary, middle and high school students, the average improvement in classroom performance was an increase of 5.23 points (n=3225, SD=1.10) and the average number of items that did not need to be improved upon was 1.02 (n=4902, SD=2.10). (See Table 11.)

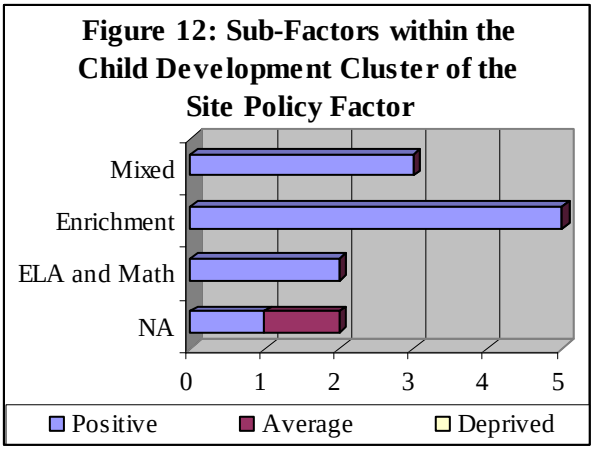
Table 11: Means by Grade Level for Each Dependent Variable

	Elementary	Middle	High	Total
PACT Scores				
ELA	-0.05	0.05	N/A	-0.01
Math	0.07	-0.08	N/A	0.00
Science	-0.03	-0.01	N/A	-0.02
Social Studies	-0.07	-0.01	N/A	-0.04
Behavior				
Absences	1.59	1.99	1.47	1.72
Referrals	0.75	0.98	-0.91	0.79
Grades				
ELA	-0.06	0.80	0.69	0.22
Math	-0.96	0.33	-0.18	-0.54
Science	0.06	0.48	N/A	0.20
Classroom Performance				
Average Improvement	5.22	5.28	5.05	5.23
Did not Need to Improve	1.12	0.71	1.57	1.02

Description of Sub-Factors within the Clusters of the Site Policy Factor

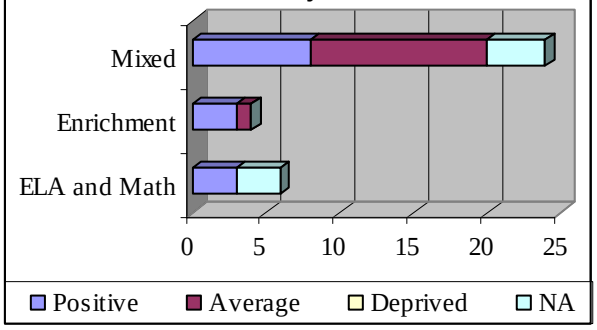
Twelve sites were designated as falling within the Child Development cluster of the Site Policy factor. Of these 12 sites, 11 were categorized as having a positive internal environment. Of these 11 with positive internal environments, two focused their activities on ELA and math, five focused their activities on enrichment, and three had a mix of activity subject areas. The one remaining site was categorized as having an average internal environment. The activity subject areas were not reported for this site. (See Figure 12.)

Figure 12: Sub-Factors within the Child Development Cluster of the Site Policy Factor



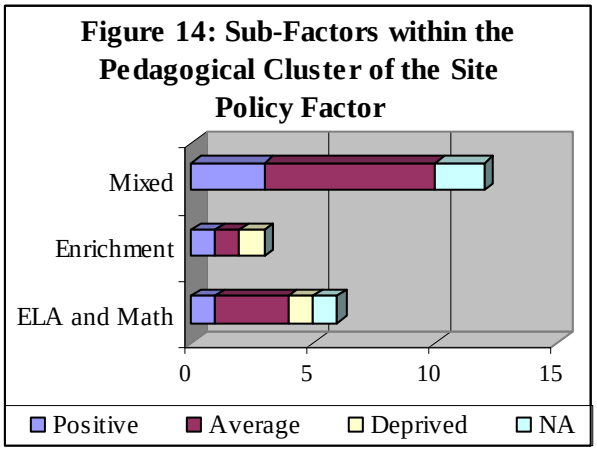
Thirty four sites were designated as falling within the Mixed Approach cluster of the Site Policy factor. Of these 34 sites, 14 were categorized as having a positive internal environment. Of these 14 with positive internal environments, three focused their activities on ELA and math, three focused their activities on enrichment, and eight had a mix of activity subject areas. Of the 34 sites in the Mixed Approach cluster, 13 were categorized as having an average internal environment. Of these 13 with average internal environments, one focused its activities on enrichment and 12 had a mix of activity subject areas. The internal environment for seven sites was unavailable. Of these seven sites, three focused their activities on ELA and math and four had a mix of activity subject areas (See Figure 13.)

Figure 13: Sub-Factors within the Mixed Approach Cluster of the Site Policy Factor



Twenty-one sites were designated as falling within the Pedagogical cluster of the Site Policy factor. Of these 21 sites, five were categorized as having a positive internal environment. Of these five with positive internal environments, one focused its activities on ELA and math, one focused its activities on enrichment, and one had a mix of activity subject areas. Of the 11 sites that were categorized as having an average internal environment, three focused their activities on ELA and math, one focused its activities on enrichment, and seven had a mix of activity subject areas. Of the two sites that were categorized as having a deprived internal environment, one focused on ELA and math and one focused on enrichment. The internal environment for three sites was unavailable. Of these three sites, one focused its activities on ELA and math and two had a mix of activity subject areas (See Figure 14.)

Figure 14: Sub-Factors within the Pedagogical Cluster of the Site Policy Factor



Description of Independent Variables

Of the 96 sites, four (4.2%) used only negative behavior management techniques, 65 (67.7%) used both positive and negative behavior management, and four (4.2%) used only positive behavior management techniques. Information on the type of behavior management was unavailable for 23 sites (24.0%).

Of the 96 sites, 24 (25.0%) attempted to build group identity and 45 (46.9%) did not. Information on building group identity was unavailable for 27 sites (28.2%).

Of the 96 sites, 18 (18.8%) used intrinsic rewards and 45 (46.9%) did not. Information on use of intrinsic rewards was unavailable for 33 sites (34.4%).

Of the 96 sites, 62 (64.6%) incorporated physical activity into their schedule and 11 (11.5%) did not. Information on physical activity was unavailable for 23 sites (24.0%).

Of the 96 sites, 12 (12.5%) used prepared curricula, 35 (36.5%) varied between using prepared curricula and developing their own lesson plans, and 26 (27.1%) developed their own lesson plans. Information on the type of curricula used was unavailable for 23 sites (24.0%).

Of the 96 sites, five (5.1%) had few to no certified teachers, 26 (27.1%) had a mix of certified teachers and aides, and 41 (42.7%) had almost all certified teachers. Information on the level of staff certification was unavailable for 24 sites (25.0%).

Description of Extraneous Variables

Of the 4,909 students, 650 (13.2%) were in grades kindergarten through second, 2,203 (44.9%) were in grades three through five, 2,010 (40.9%) were in grades six through eight, and 46 (0.9%) were in grades nine through twelve. Of the students, 2,462 (50.2%) were female and 2447 (49.8%) were male. Of the students, 1,556 (31.7%) were Caucasian, 3,112 (63.4%) were African American, 180 (3.7%) were Hispanic, and 61 (1.2%) were of an ethnicity other than that listed or they were biracial. Of the students, 3,914 (79.9%) receive free or reduced lunch and 995 (20.3%) did not. Of the students, nine (0.2%) were special needs students and 4,872 (99.2%) were not. The special need status of 28 students (0.6%) was unavailable. Of the students, 139 (2.8%) possessed limited English proficiency (LEP) and 4,654 (94.8%) did not. The LEP status of 116 students (2.4%) was unknown.

Of the 96 sites, 47 (49.0%) were in a rural location and 40 (41.7%) were in an urban location. Information on the location status of nine sites (9.4%) was unavailable. Of the 96 sites, six (6.3%) were sponsored by a community-based organization, five (5.2%) were sponsored by a club, five (5.2%) were sponsored by a college or university, one (1.0%) was sponsored by a for-profit entity, and 79 (82.3%) were sponsored by school districts.

Description of Control Group Data

The average change in ELA PACT scores for students in the 21st CCLC program was a decrease of 0.03 points (n=638, SD=1.04) and the average change for students who were not in the 21st CCLC program was a decrease of 0.04 points (n=3375, SD=1.04). The average change in Math PACT scores for students in the 21st CCLC program was an increase of 0.01 points (n=751, SD=1.07) and the average change for students who were not in the 21st CCLC program was a decrease of 0.13 points (n=3877, SD=1.07). The average change in Science PACT scores for students in the 21st CCLC program was a decrease of 0.05 points (n=644, SD=1.13) and the average change for students who were not in the 21st CCLC program was a decrease of 0.09 points (n=3904, SD=1.16). The average change in Social Studies PACT scores for students in the 21st CCLC program was a decrease of 0.14 points (n=766, SD=1.12) and the average change

for students who were not in the 21st CCLC program was a decrease of 0.23 points (n=4215, SD=1.13). (See Table 15.)

Table 15: Means by Whether or Not in 21st CCLC Program for Each Dependent Variable

	In 21st CCLC Program	Not In 21st CCLC Program
PACT Scores		
ELA	-0.03	-0.04
Math	0.01	-0.13
Science	-0.05	-0.09
Social Studies	-0.14	-0.23

PART III: INFLUENCES ON THE DESIRED OUTCOMES OF 21ST CCLC PROGRAMS FOR STUDENTS IN ALL SITES

Several steps were taken to understand the influences of the experimental variables on the desired outcomes of 21st CCLC programs. The first step was to identify any overall changes in outcomes. The second and third steps identified differences between the dependent variables for each cluster in the primary and sub-factors, respectively. The fourth and fifth steps identified relationships between the dependent variables and each independent and extraneous variable, respectively. The final step was to determine the differences between the students in 21st CCLC programs and students in those same feeder schools who do not participate in the programming. These analyses were conducted on all active sites that were first funded during the 2002-2003 and 2003-2004 grant periods. Steps two through six utilize "difference" variables which were developed by subtracting the baseline data from the comparative data. The methods used to compute the "difference" variables are discussed in the "Explanation of Dependent Variables" section of Findings Part II. For purposes of this report, only those relationships which were found to be significant are discussed.

During the 2005-2006 grant period, there were 92 active sites which were first funded during the 2002-2003 and 2003-2004 grant periods. Of these, 68 sites provided valid student-level data to the research team. The student-level data was considered valid only when the site provided both the students' demographics and program attendance. Qualitative data was available for 51 of the 68 sites. Data on activities, finances, operations, and partners was available for all 68 sites through the PPICS system maintained by Learning Point. Data on community and feeder school characteristics was obtained from the SDE website for the feeder schools of 64 of the 68 sites. Descriptive information on each independent variable is presented in the "Description of Independent Variables" section of Findings Part II of this report.

The 68 sites which provided valid student-level data to the research team provided data on a total of 4,909 students. Of these 4,909 students, data for both 2005 and 2006 PACT scores were reported for 2,057 students in English/Language Arts (ELA), 2,061 students in mathematics, 2,044 students in science, and 2,023 students in social studies. Data for both 2004-2005 and 2005-2006 absences and referrals were reported for 1,821 students and 1,607 students, respectively. Data for both first and last quarter grades in school were reported for 2,912 students in ELA, 2,909 students in mathematics, and 2,671 students in science. Data on students' grades in reading were also provided; however, the number of students with grades in this subject was too few to conduct meaningful analyses and therefore was removed from the analysis. Teacher surveys on classroom performance were completed for 4,902 students. It must be noted that, with the exception of data on classroom performance, data for the dependent variables were only available for about half of the students who participated in the program. An explanation of and descriptive information on each dependent variable is presented in the "Explanation of Dependent Variables" section of Findings Part II of this report.

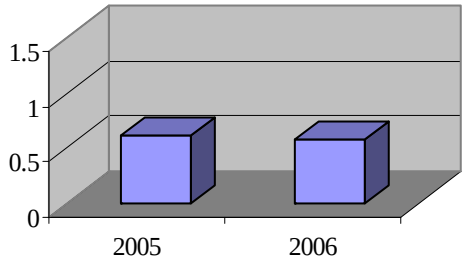
PACT scores for students in the control group were available for students in feeder schools at 56 of the aforementioned 68 sites. Only those program students at sites where data on the control group were available are included in the control group analysis. Therefore, control group data for both 2005 and 2006 PACT scores were reported for 9,872 students in English/Language Arts

(ELA), 9,888 students in mathematics, 9,859 students in science, and 9,852 students in social studies. Program student data for both 2005 and 2006 PACT scores were reported for 1,938 students in English/Language Arts (ELA), 1,941 students in mathematics, 1,946 students in science, and 1,928 students in social studies. Descriptive information on data found in the control group analysis is presented in the "Description of Control Group Data" section of Findings Part II of this report.

Changes in Dependent Variables

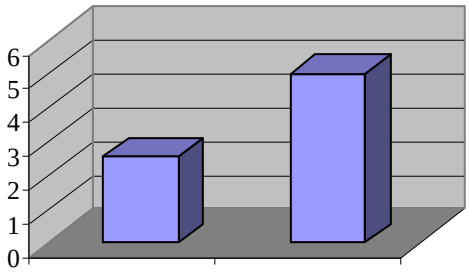
A paired samples t-test indicates that there is a significant difference between the Social Studies PACT scores from 2005 to 2006 for students in all sites (t=2.79, df=2022, p=0.005). The average Social Studies PACT score for 2005 is 0.62 (n=2023, SD=0.72). The average Social Studies PACT score for 2006 is 0.58 (n=2023, SD=0.715). Therefore, the average Social Studies PACT score decreased significantly from 2005 to 2006 for students in all sites. (See Figure 16.) There are no significant differences in ELA, Math, or Science PACT scores between 2005 and 2006 for students in all sites. (See Figure 16.)

Figure 16: Difference in 2005 and 2006 Social Studies PACT Scores for Students in All Sites



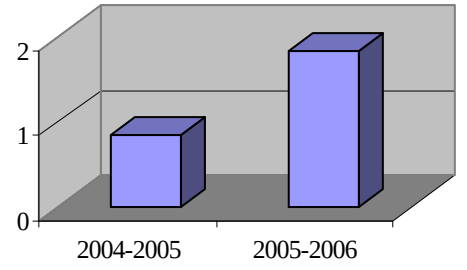
A paired samples t-test indicates that there is a significant difference between the number of absences in the 2004-2005 school year and the 2005-2006 school year for students in all sites (t=10.25, df=1820, p=0.000). Students had an average of 4.0 absences (n=1821, SD=6.78) during the 2004-2005 school year, whereas these same students had an average of 5.72 absences (n=1821, SD=6.48) during the 2005-2006 school year. Therefore, the average number of absences increased significantly from the 2004-2005 school year to the 2005-2006 school year for students in all sites. (See Figure 17.)

Figure 17: Average Number of Absences for Students in All Sites



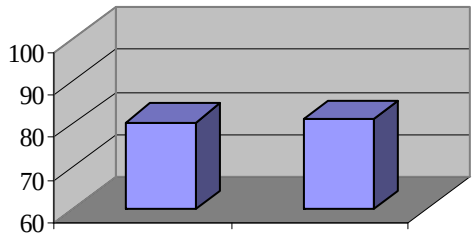
A paired samples t-test shows that there is a significant difference between the number of discipline referrals in the 2004-2005 school year and the 2005-2006 school year for students in all sites (t=-9.58, df=1606, p=0.000). Students had an average of 1.05 discipline referrals (n=1607, SD=2.78) during the 2004-2005 school year, whereas these same students had an average of 1.84 discipline referrals (n=1607, SD=3.32) during the 2005-2006 school year. Therefore, the average number of discipline referrals increased significantly from the 2004-2005 school year to the 2005-2006 school year for students in all sites. (See Figure 18.)

Figure 18: Average Number of Discipline Referrals for Students in All Sites



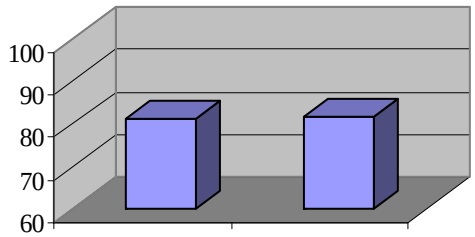
A paired samples t-test indicates that there is a significant difference between the ELA grades for the first and last grading period of the 2005-2006 school year for students in all sites (t=-4.62, df=29118, p=0.000). Students' average ELA grade for the first grading period was 80.51 (n=2912, SD=10.14). Students' average ELA grade for the last grading period was 81.28 (n=2912, SD=9.66). Therefore, students' average ELA grade increased significantly from the first to the last grading period for students in all sites. (See Figure 19.)

Figure 19: 2005-2006 First and Last Grading Period Grades in ELA for Students in All Sites



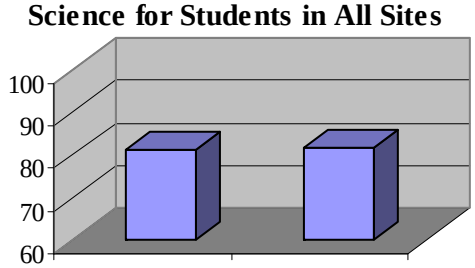
A paired samples t-test indicates that there is a significant difference between the math grades for the first and last grading period of the 2005-2006 school year for students in the all sites (t=1.98, df=2909, p=0.048). Students' average math grade for the first grading period was 80.10 (n=2909, SD=9.83). Students' average math grade for the last grading period was 79.78 (n=2909, SD=9.88). Therefore, students' average math grade decreased significantly from the first to the last grading period for students in all sites. (See Figure 20.)

Figure 20: 2005-2006 First and Last Grading Period Grades in Math for Students in All Sites



A paired samples t-test indicates that there is a significant difference between the science grades for the first and last grading period of the 2005-2006 school year for students in the all sites (t=-3.73, df=2670, p=0.001). Students' average science grade for the first grading period was 81.15 (n=2671, SD=10.50). Students' average science grade for the last grading period was 81.79 (n=2671, SD=10.20). Therefore, students' average science grade increased significantly from the first to the last grading period for students in all sites. (See Figure 21.)

Figure 21: 2005-2006 First and Last Grading Period Grades in Science for Students in All Sites



A one-sample t-test indicates that the students' average improvement in classroom performance is significantly different from the test value, which is that the student did not change (t=63.77, df=3224, p=0.000). The mean average improvement for students in all sites was 5.23 (n=3225, SD=1.10), compared to the test value of 4. Therefore, students in all sites significantly improved their classroom performance.

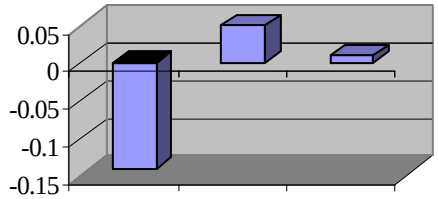
A one-sample t-test indicates that the number of items the student needed to improve on in classroom performance is significantly different from the test values, which are that the student needed to improve on all items (t=33.79, df=4901, p=0.000) and that the student did not need to improve on any items (t=-299.02, df=4901, p=0.000). The mean number of items that students

in all sites needed to improve on was 1.02 (n=4902, SD=2.10), compared to the test value of 0 (that they needed to improve on all items) and compared to the test value of 10 (that they did not need to improve on any items). Therefore, students in all sites needed to improve on some aspects of classroom performance, but not on all aspects.

Influence of the Primary Factor

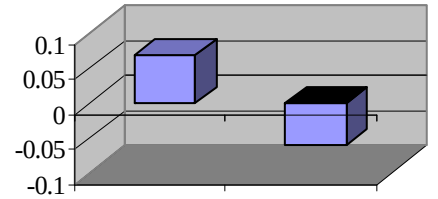
A Oneway ANOVA comparison of means indicates that the average difference between 2005 and 2006 ELA PACT scores is significantly different among each cluster in the Site Policy factor (F=5.43, df=2, p=0.004). The average difference in ELA PACT scores for students in sites with a child development policy was a decrease of 0.11 (n=193, SD=0.64), whereas the average difference in ELA PACT scores of students in sites with a pedagogical policy was an increase of 0.01 (n=544, SD=0.61, p=0.044), and the average difference in ELA PACT scores of students in sites with a mixed approach was an increase of 0.05 (n=786, SD=0.60, p=0.003). Therefore, the average ELA PACT score for students in sites with a child development policy decreased, while the average ELA PACT score for students in sites with pedagogical and mixed approaches increased. (See Figure 22.)

Figure 22: Differences in ELA PACT Scores for the Policy Factor for Students in All Sites



A Oneway ANOVA comparison of means indicates that the average difference between 2005 and 2006 Science PACT scores is significantly different between two of the clusters in the Site Policy factor (F=3.19, df=2, p=0.042). The average difference in Science PACT scores for students in sites with a child development policy was an increase of 0.07 points (n=194, SD=0.71), whereas the average difference in Science PACT scores of students in sites with a pedagogical policy was a decrease of 0.06 (n=544, SD=0.67, p=0.041). Therefore, the average Science PACT score for students in sites with a child development policy increased, while the average Science PACT score for students in sites with a pedagogical policy decreased. (See Figure 23.)

Figure 23: Differences in Science PACT Scores for the Policy Factor for Students in All Sites

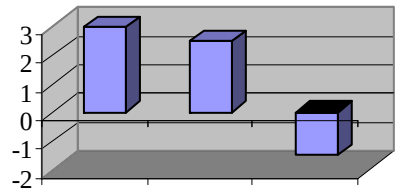


There are no significant differences between 2005 and 2006 Math and Social Studies PACT scores among each cluster of the Site Policy factor for students in all sites.

A Oneway ANOVA comparison of means indicates that the average difference in 2004-2005 and 2005-2006 absences is significantly different among each cluster of the Site Policy factor (F=42.0, df=2, p=0.000). The average difference in yearly absences for students in sites with a pedagogical policy is a decrease of 1.51 days (n=280, SD=7.77). This average is significantly different from the average difference in yearly absences of students in sites with a child

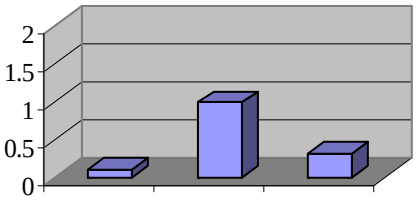
development policy (mean=3.42 days, n=348, SD=8.52, p=0.000) and those in sites with a mixed approach (mean=2.49 days, n=706, SD=6.10, p=0.000). Therefore, the absences for students in sites with a pedagogical policy decreased, while the absences for students in sites with a child development policy or mixed approach increased. (See Figure 24.)

Figure 24: Differences in Yearly Absences within the Policy Factor for Students in All Sites



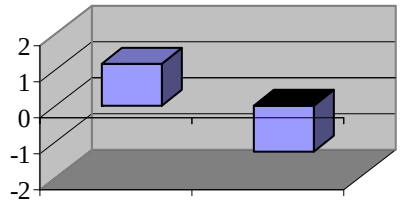
A Oneway ANOVA comparison of means indicates that the average difference in 2004-2005 and 2005-2006 referrals is significantly different among each cluster of the Site Policy factor (F=8.37, df=2, p=0.000). The average difference in yearly referrals for students in sites with a mixed approach was an increase of 0.99 referrals (n=674, SD=3.0). This average is significantly higher than the average difference in yearly referrals of students in sites with a pedagogical policy (mean=0.31, n=252, SD=4.84, p=0.017) and those in sites with a child development policy (mean=0.10, n=272, SD=2.43, p=0.001). Therefore, the increase in referrals for students in sites with a mixed approach is significantly higher than the increase for students in sites with a pedagogical policy or child development approach. (See Figure 25.)

Figure 25: Differences in Yearly Referrals within the Policy Factor for Students in All Sites



A Oneway ANOVA comparison of means indicates that the average difference in ELA grades from the first to the last grading period is significantly different between two of the clusters in the Site Policy factor (F=3.77, df=2, p=0.023). The average difference in ELA grades for students in sites with a mixed approach was a decrease of 1.3 points (n=1152, SD=26.49). This average difference is significantly less than the average difference in ELA grades for students in sites with a pedagogical policy (mean=1.77, n=829, SD=8.15, p=0.019). Therefore, ELA grades for students in sites with a mixed approach decreased, whereas the ELA grades for students in sites with a pedagogical policy increased. (See Figure 26.) The average differences in math and science grades are not significantly different among each cluster of the Site Policy factor.

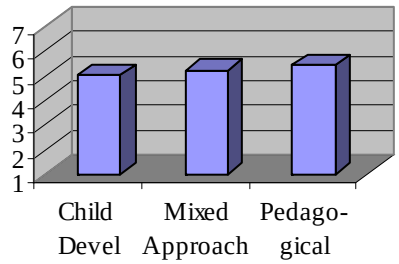
Figure 26: Differences in ELA Grades within the Policy Factor for Students in All Sites



A Oneway ANOVA comparison of means indicates that there is a significant difference between the average improvement in classroom performance for each cluster in the Site Policy factor (F=17.82, df=2, p=0.000). The average improvement for students in sites with a pedagogical policy is 5.41 points, which was a slight to moderate improvement (n=629, SD=1.01). This

average is significantly higher than the average improvement of students in sites with a child development policy (mean=5.01, n=454, SD=1.27, p=0.000) and of students in sites with a mixed approach (mean=5.20, n=1397, SD=1.08, p=0.000). Therefore, the average improvement of students in sites with a pedagogical policy is significantly greater than that of students in sites with a child development policy or mixed approach. (See Figure 27.)

Figure 27: Change in Classroom Performance within the Policy Factor for Students in All Sites



Influence of Sub-Factors

The Internal Environment Sub-Factor

A Oneway ANOVA comparison of means indicates that the average difference between 2005 and 2006 Math PACT scores is significantly different among each cluster in the Internal Environment sub-factor (F=5.09, df=2, p=0.006). The average difference in Math PACT scores for students in sites with a deprived internal environment was a decrease of 0.22 (n=77, SD=0.55), which was significantly less than the average difference in Math PACT scores of students in sites with an average internal environment (mean=0.03 n=761, SD=0.64, p=0.005), and significantly less than the average difference in Math PACT scores of students in sites with a positive internal environment (mean=0.02, n=525, SD=0.71, p=0.008). Therefore, the average Math PACT score for students in sites with a deprived internal environment decreased, while the average Math PACT score for students in sites with average and positive internal environments increased. (See Figure 28.)

Figure 28: Math PACT Scores for Internal Environment Factor for Students in All Sites

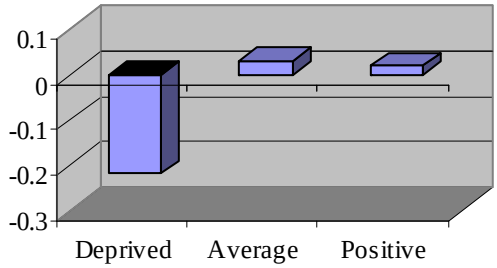
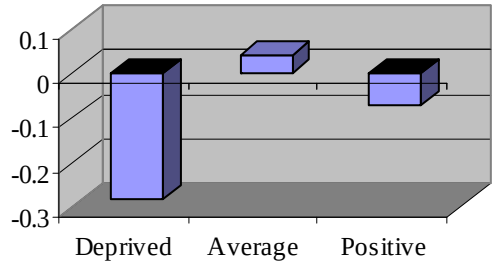


Figure 29: Social Studies PACT Scores for Internal Environment Factor for Students in All Sites



A Oneway ANOVA comparison of means indicates that the average difference between 2005 and 2006 Social Studies PACT scores is significantly different among the clusters in the Internal Environment sub-factor (F=9.59, df=2, p=0.000). The average difference in Social Studies PACT scores for students in sites with a deprived internal environment was a decrease of 0.28 points (n=75, SD=0.81), which is significantly less than the average difference in Social Studies PACT scores of students in sites

with a positive internal environment (mean=-0.07, n=521, SD=0.68, p=0.030) and significantly less than the average difference in Social Studies PACT scores of students in sites with an average internal environment (mean=0.04, n=749, SD=0.67, p=0.000). Furthermore, students in sites with an average internal environment had a significantly greater difference in Social Studies PACT scores than students in sites with a positive internal environment (p=0.017). Therefore, the average Social Studies PACT score for students in sites with an average internal environment increased, while the average Social Studies PACT score for students in sites with a positive or deprived internal environment decreased. (See Figure 29.)

There are no significant differences between 2005 and 2006 ELA and science PACT Scores among each cluster of the Internal Environment sub-factor for students in all sites.

A Oneway ANOVA comparison of means indicates that the average difference in 2004-2005 and 2005-2006 absences is significantly different among each cluster of the Internal Environment sub-factor (F=14.86, df=2, p=0.000). The average difference in yearly absences for students in sites with an average internal environment was an increase of 0.04 days (n=460, SD=7.12). This average is significantly less than the average difference in yearly absences for students in sites with a deprived internal environment (mean=2.64 days, n=88, SD=5.7, p=0.009) and less than the average difference for students in sites with a positive internal environment (mean=2.56 days, n=549, SD=8.21, p=0.000). Therefore, the absences for students in sites with an average internal environment remained relatively the same, whereas the absences for students in sites with a positive or deprived internal environment increased. (See Figure 30.)

Figure 30: Difference in Absences for Internal Environment Factor for Students in All Sites

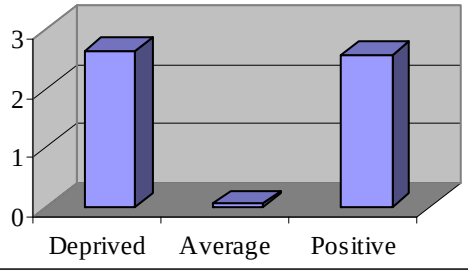
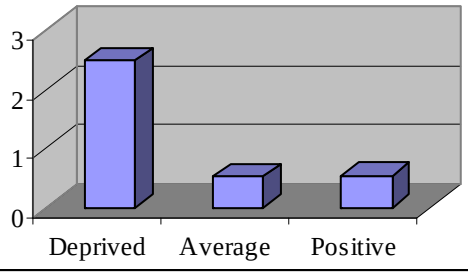


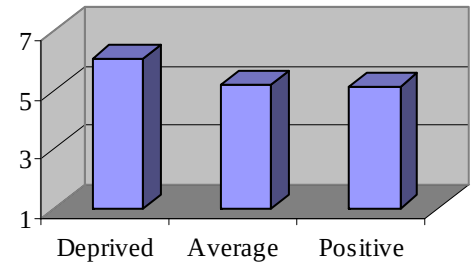
Figure 31: Difference in Referrals for Internal Environment Factor for Students in All Sites



A Oneway ANOVA comparison of means indicates that the average difference in 2004-2005 and 2005-2006 referrals is significantly different among each cluster of the Internal Environment sub-factor (F=8.12, df=2, p=0.000). The average difference in yearly referrals for students in sites with a deprived internal environment was an increase of 2.48 referrals (n=56, SD=2.85). This average is significantly higher than the average difference in yearly referrals of students in sites with an average internal environment (mean= 0.52, n=466, SD=3.94, p=0.000) and greater than the average difference in sites with a positive internal environment (mean=0.53, n=453, SD=3.12, p=0.000). Therefore, the increase in referrals for students in sites with a deprived internal environment is significantly higher than the increase for students in sites with a positive or average internal environment. (See Figure 31.) The average differences in ELA, Math, and Science grades are not significantly different for each cluster of the Internal Environment sub-factor.

A Oneway ANOVA comparison of means indicates that there is a significant difference between the average improvement in classroom performance for each cluster in the Internal Environment sub-factor (F=21.86, df=2, p=0.000). The average improvement for students in sites with a deprived internal environment is 6.07 points, which was a moderate improvement (n=60, SD=0.52). This average is significantly higher than the average improvement of students in sites with an average internal environment (mean=5.18, n=1038, SD=1.02, p=0.000) and higher than the average improvement of students in sites with a positive internal environment (mean=5.10, n=1007, SD=1.21, p=0.000). Therefore, the average improvement of students in sites with a deprived internal environment is significantly greater than that of students in sites with an average or positive internal environment. (See Figure 32.) It must be noted that the number of students in sites with a deprived internal environment is much less than the number of students in sites with a positive or average internal environment.

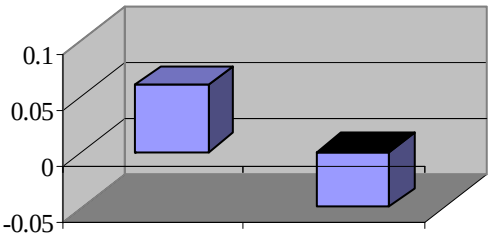
Figure 32: Classroom Performance and Internal Environment for Students in All Sites



The Activity Subject Area Sub-Factor

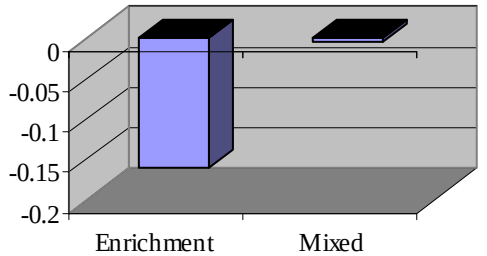
A Oneway ANOVA comparison of means indicates that the average difference between 2005 and 2006 ELA PACT scores is significantly different between two of the clusters in the Activity Subject Area sub-factor (F=3.47, df=2, p=0.031). The average difference in ELA PACT scores for students in sites with a focus on enrichment was a decrease of 0.05 points (n=357, SD=0.58), whereas the average difference in ELA PACT scores of students in sites with an ELA and math focus was an increase of 0.06 points (n=434, SD=0.62, p=0.035). Therefore, the average ELA PACT score for students in sites with a focus on ELA and math increased, while the average ELA PACT score for students in sites with a focus on enrichment decreased. (See Figure 33.)

Figure 33: ELA PACT Scores for Activity Subject Area Factor for Students in All Sites



A Oneway ANOVA comparison of means indicates that the average difference between 2005 and 2006 Social Studies PACT scores is significantly different between two of the clusters in the Activity Subject Area sub-factor (F=6.46, df=2, p=0.002). The average difference in Social Studies PACT scores for students in sites with a focus on enrichment was a decrease of 0.16 points (n=356, SD=0.74), whereas the average the Social Studies PACT scores of students in sites with mixed subject areas remained about the same (mean=-0.004, n=1156,

Figure 34: Social Studies PACT Scores for Activity Subject Area Factor for Students in All Sites

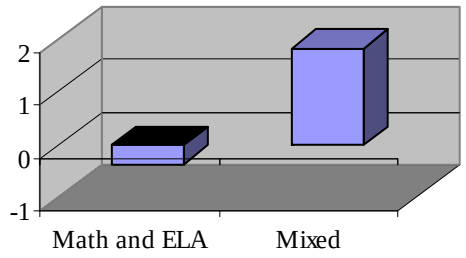


SD=0.70, p=0.001). Therefore, the average Social Studies PACT score for students in sites with a focus on enrichment decreased, while the average Social Studies PACT score for students in sites with mixed activity subject areas remained about the same. (See Figure 34.)

There are no significant differences between 2005 and 2006 Math and Science PACT Scores within each cluster of the Activity Subject Area sub-factor for students in all sites.

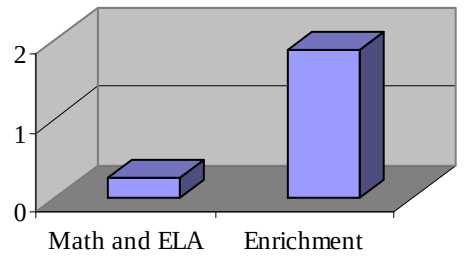
A Oneway ANOVA comparison of means indicates that the average difference in 2004-2005 and 2005-2006 absences is significantly different between two of the clusters of the Activity Subject Area sub-factor (F=7.04, df=2, p=0.001). The average difference in yearly absences for students in sites with a focus on ELA and math is a decrease of 0.38 days (n=168, SD=5.34). This average is significantly less than the average difference in yearly absences for students in sites with mixed activity subject areas (mean=1.83 days, n=1259, SD=7.86, p=0.001). Therefore, the absences outcome for students in sites with a focus on ELA and math is significantly better than the absences outcome for students in sites with mixed activity subject areas. (See Figure 35.)

Figure 35: Differences in Absences for Activity Subject Areas for Students in All Sites



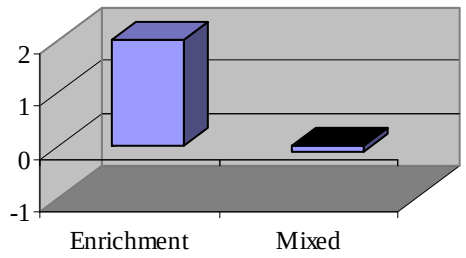
A Oneway ANOVA comparison of means indicates that the average difference in 2004-2005 and 2005-2006 referrals is significantly different between two of the clusters of the Activity Subject Area sub-factor (F=11.91, df=2, p=0.000). The average difference in yearly referrals for students in sites with a focus on ELA and math was an increase of 0.25 referrals (n=170, SD=5.54). This average is significantly less than the average difference in yearly referrals of students in sites with a focus on enrichment (mean=1.88, n=178, SD=2.79, p=0.000). Therefore, students in sites with a focus on ELA and math have a significantly smaller increase in discipline referrals than students in sites with a focus on enrichment. (See Figure 36.)

Figure 36: Differences in Referrals for Activity Subject Areas for Students in All Sites



A Oneway ANOVA comparison of means indicates that the average difference in ELA grades from the first to the last grading period is significantly different between two of the clusters of the Activity Subject Area sub-factor (F=3.26, df=2, p=0.039). The average difference in ELA grades for students in sites with a focus on enrichment was an increase of 2.35 points (n=391, SD=9.28). This average is significantly greater than the average difference in ELA grades for students in sites with mixed activity subject areas (mean=-0.14, n=1846, SD=11.19, p=0.039). Therefore, students in sites with a

Figure 37: Differences in ELA Grades by Activity Subject Areas for Students in All Sites



focus on enrichment have a significantly greater increase in ELA grades than students in sites with mixed activity subject areas. (See Figure 37.)

A Oneway ANOVA comparison of means indicates that the average difference in math grades from the first to the last grading period is significantly different between two of the clusters of the Activity Subject Area sub-factor (F=3.03, df=2, p=0.048). The average difference in math grades for students in sites with a focus on enrichment was an increase of 0.74 points (n=392, SD=8.64). This average is significantly greater than the average difference in math grades for students in sites with mixed activity subject areas (mean=-0.60, n=1847, SD=11.11, p=0.049). Therefore, students in sites with a focus on enrichment have a significantly greater increase in math grades than students in sites with mixed activity subject areas. (See Figure 38.)

A Oneway ANOVA comparison of means indicates that the average difference in science grades from the first to the last grading period is significantly different between two of the clusters of the Activity Subject Area sub-factor (F=10.85, df=2, p=0.000). The average difference in science grades for students in sites with a focus on enrichment was an increase of 2.4 points (n=390, SD=10.27). This average is significantly greater than the average difference in science grades for students in sites with mixed activity subject areas (mean=-0.48, n=1643, SD=11.93, p=0.000). Therefore, students in sites with a focus on enrichment have a significantly greater increase in science grades than students in sites with mixed activity subject areas. (See Figure 39.)

A Oneway ANOVA comparison of means indicates that there is a significant difference between the average improvement in classroom performance for each cluster in the Activity Subject Area sub-factor (F=24.9, df=2, p=0.000). The average improvement for students in sites with an ELA and math focus was 5.5 points, which was a slight to moderate improvement (n=541, SD=1.05). This average is significantly higher than the average improvement of students in sites with an enrichment focus (mean=5.05, n=530, SD=1.11, p=0.000) and higher than the average improvement of students in sites with mixed activity subject areas (mean=5.21, n=1965, SD=1.10, p=0.000). In addition, the average improvement of students in sites with mixed activity subject areas is significantly

Figure 38: Differences in Math Grades by Activity Subject Area for Students in All Sites

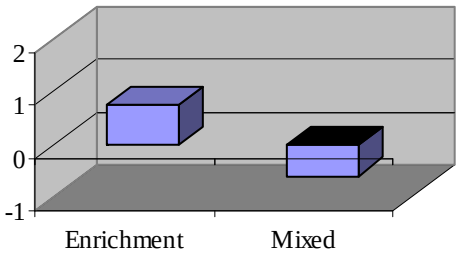


Figure 39: Differences in Science Grades by Activity Subject Area for Students in All Sites

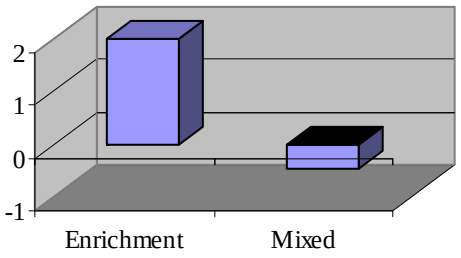
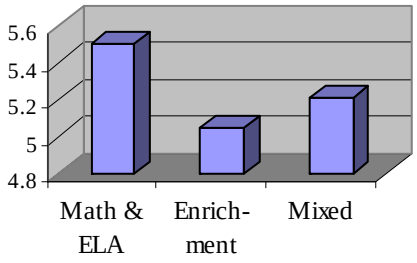


Figure 40: Improvement in Classroom Performance by Activity Subject Areas for All Students



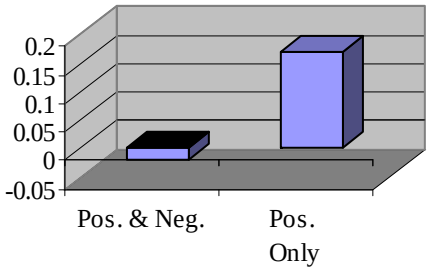
greater than the average improvement of students in sites with a focus on enrichment (p=0.007). Therefore, average improvement in classroom performance was the greatest for students in sites with an ELA and math focus, followed by students in sites with mixed activity subject areas. Students in sites with a focus on enrichment had the smallest improvement in classroom performance. (See Figure 40.)

Influence of Independent Variables

Type of Behavior Management

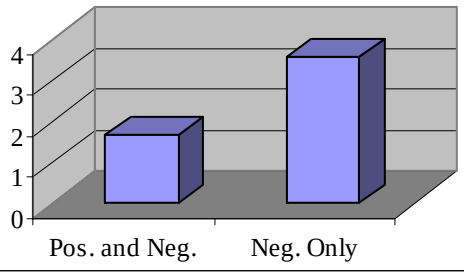
A Oneway ANOVA comparison of means indicates that the average difference between 2005 and 2006 Science PACT scores is significantly different between two of the different types of behavior management styles (F=3.82, df=2, p=0.022). The average difference in Science PACT scores for students in sites with a positive behavior management style was an increase of 0.17 points (n=92, SD=0.69), whereas the average difference in Science PACT scores of students in sites with using both positive and negative behavior management was an decrease of 0.07 points (n=1446, SD=0.64, p=0.016). Therefore, the average Science PACT score for students in sites with positive behavior management increased, while the average Science PACT score for students in sites with both positive and negative behavior management decreased. (See Figure 41.)

Figure 41: Differences in Science PACT Scores by Behavior Mgmt for Students in All Sites



There are no significant differences between 2005 and 2006 ELA, Math and Social Studies PACT Scores for each type of behavior management style for students in all sites.

Figure 42: Differences in Absences by Behavior Management Type for Students in All Sites

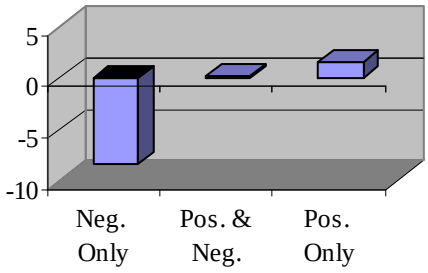


A Oneway ANOVA comparison of means indicates that the average difference in 2004-2005 and 2005-2006 absences is significantly different between two of the different types of behavior management styles (F=4.97, df=2, p=0.007). The average difference in yearly absences for students in sites using only negative behavior management was an increase of 3.6 days (n=119, SD=6.82). This average is significantly greater than the average difference in yearly absences for students in sites using both positive and negative behavior management (mean=1.67 days, n=1081, SD=6.83, p=0.020). Therefore, students in sites that use both positive and negative behavior management have a significantly smaller increase in absences than students in sites that use only negative behavior management. (See Figure 42.)

There is not a significant difference between the change in discipline referrals from 2004-2005 to 2005-2006 by each type of behavior management style for students in all sites.

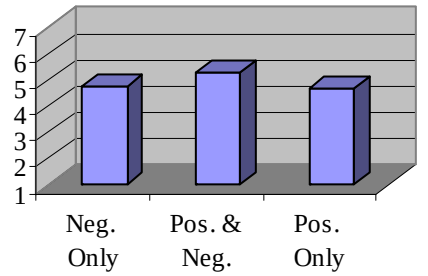
A Oneway ANOVA comparison of means indicates that the average difference in science grades from the first to the last grading period is significantly different among the different types of behavior management styles (F=20.7, df=2, p=0.000). The average difference in science grades for students in sites using only negative behavior management was a decrease of 8.28 points (n=75, SD=28.16). This average is significantly less than the average difference in science grades for students in sites using both positive and negative behavior management (mean=0.23, n=1953, SD=10.46, p=0.000), and significantly less than the average difference in science grades for students in sites using only positive behavior management (mean=1.6, n=86, SD=8.64, p=0.000). Therefore, students in sites that use only negative behavior management have a decrease in science grades, whereas students in sites that use both positive and negative behavior management and students in sites that use only positive behavior management have increases in the science grades. (See Figure 43.)

Figure 43: Differences in Science Grades by Behavior Management Type for Students in All Sites



There are no significant differences between first and last grading period grades in ELA, math and social studies for each type of behavior management style for students in all sites.

Figure 44: Classroom Performance by Behavior Management Type for Students in All Sites



A Oneway ANOVA comparison of means indicates that there is a significant difference between the average improvement in classroom performance among each type of behavior management style (F=34.35, df=2, p=0.000). The average improvement for students in sites using both positive and negative behavior management was 5.28 points, which is just over a slight improvement (n=2266, SD=1.06). This average is significantly higher than the average improvement of students in sites using only negative behavior management (mean=4.76, n=143, SD=1.27, p=0.000) and sites using only positive behavior management (mean=4.68, n=145, SD=1.37, p=0.000). Therefore, average improvement in classroom performance was the greatest for students in sites using both positive and negative behavior management. (See Figure 44.)

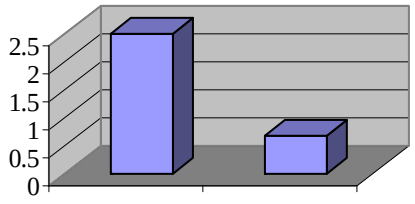
Group Identity for Behavior Management

There are no significant differences in ELA, Math, Science or Social Studies PACT scores for students in all sites based upon whether or not the site attempted to build group identity.

An independent samples t-test indicates that the difference in yearly absences is significantly different for students in sites that attempt to build group identity compared to students in sites that do not attempt to build group identity (t=-4.84, df=1237, p=0.000). The average difference in yearly absences for students in sites that attempt to build group identity was an increase of 2.74 days (n=502, SD=7.44). The average difference in yearly absences for students in sites that do not

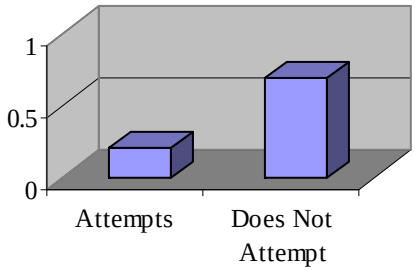
attempt to build group identity was an increase of 0.66 days (n=737, SD=7.45). Therefore, students in sites that attempted to build group identity had a greater increase in yearly absences than those that did not attempt to build group identity. (See Figure 45.)

Figure 45: Differences in Yearly Absences by Builds Group Identity for Youth in All Sites



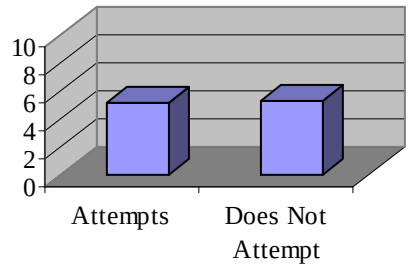
An independent samples t-test indicates that the difference in yearly referrals is significantly different for students in sites that attempt to build group identity compared to students in sites that do not attempt to build group identity (t=2.62, df=1076.2, p=0.009). The average difference in yearly referrals for students in sites that attempt to build group identity was an increase of 0.21 referrals (n=427, SD=2.21). The average difference in yearly referrals for students in sites that do not attempt to build group identity was an increase of 0.7 referrals (n=670, SD=3.99). Therefore, students in sites that do not attempt to build group identity had a greater increase in yearly referrals than those that attempted to build group identity for all sites. (See Figure 46.)

Figure 46: Differences in Yearly Referrals by Builds Group Identity for Students in All Sites



There are no significant differences in grades for students in all sites based upon whether or not the site attempted to build group identity.

Figure 47: Classroom Performance by Builds Group Identity for Students in All Sites



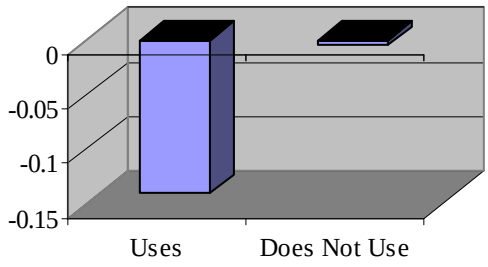
An independent samples t-test indicates that there is a significant difference in classroom performance for students in sites that attempt to build group identity compared to students in sites that do not attempt to build group identity (t=2.555, df=2392, p=0.011). The average improvement in classroom performance for students in sites that attempt to build group identity was 5.11 points (n=811, SD=1.14), which was just better than slight improvement. The average improvement in classroom performance for students in sites that do not attempt to build group identity was 5.23 points (n=1583, SD=1.09). Therefore, students in sites that do not attempt to build group identity had greater improvement in classroom performance than students in sites that do attempt to build group identity. (See Figure 47.)

Intrinsic Rewards for Behavior Management

An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores is significantly different for students in sites that use intrinsic rewards compared to students in sites that do not use intrinsic rewards (t=2.75, df=330.35, p=0.006). The

average difference in Social Studies PACT scores for students in sites that use intrinsic rewards was a decrease of 0.14 points (n=233, SD=0.70). The average difference in Social Studies PACT scores for students in sites that do not use intrinsic rewards was a decrease of 0.004 points (n=1132, SD=0.68). Therefore, students in sites that use intrinsic rewards had a larger decrease in Social Studies PACT scores than students in sites that do not use intrinsic rewards. (See Figure 48.)

Figure 48: Difference in Social Studies PACT by Use of Intrinsic Rewards for Students in All Sites



There are no significant differences in ELA, Math, or Science PACT scores based upon whether or not the site utilized intrinsic rewards for students in all sites.

An independent samples t-test indicates that the difference in yearly referrals is significantly different for students in sites that use intrinsic rewards compared to students in sites that do not use intrinsic rewards (t=4.13, df=137.25, p=0.000). The average difference in yearly referrals for students in sites that use intrinsic rewards was a decrease of 0.62 referrals (n=99, SD=3.07). The average difference in yearly referrals for students in sites that do not use intrinsic rewards was an increase of 0.77 referrals (n=819, SD=3.80). Therefore, students in sites that use intrinsic rewards had a decrease in yearly referrals, whereas students in sites that do not use intrinsic rewards experienced an increase in yearly referrals. (See Figure 49.)

Figure 49: Differences in Referrals by Use of Intrinsic Rewards for Students in All Sites

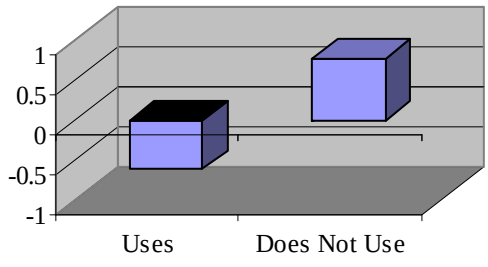
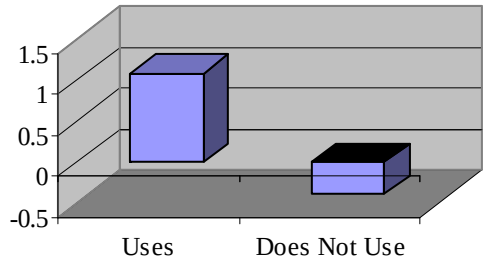


Figure 50: Difference in Science Grades by Use of Intrinsic Rewards for Students in All Sites



An independent samples t-test indicates that the difference between the first and last grading period science grades is significantly different for students in sites that use intrinsic rewards compared to students in sites that do not use intrinsic rewards (t=-2.36, df=492.2, p=0.019). The average difference in science grades for students in sites that use intrinsic rewards was an increase of 1.09 points (n=289, SD=9.34). The average difference in science grades for students in sites that do not use intrinsic rewards was a decrease of 0.40 points (n=1566, SD=12.29). Therefore, students in sites that use intrinsic rewards had an increase in science grades, while students in sites that do not use intrinsic rewards experienced a decrease in science grades. (See Figure 50.)

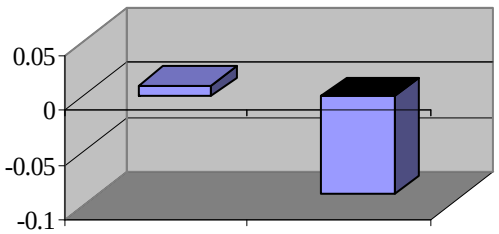
There are no significant differences in classroom performance for students in all sites according to whether or not the program used intrinsic rewards.

Physical Activities

An independent samples t-test indicates that the difference in 2005 and 2006 Math PACT scores is significantly different for students in sites that incorporate physical activity into their schedule compared to students in sites that do not incorporate physical activity into their schedule (t=-2.19, df=1604, p=0.029). The average difference in Math PACT scores for students in sites that have a physical activity was an increase of 0.01 points (n=1367, SD=0.66). The average difference in Math PACT scores for students in sites that do not have a physical activity was a decrease of 0.09 (n=239, SD=0.65). Therefore, students in sites that incorporate physical activity into their schedule had an increase in Math PACT scores, whereas students in sites that do not have a physical activity had a decrease in Math PACT scores. (See Figure 51.)

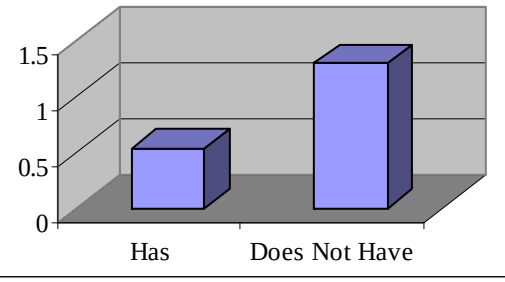
There are no significant differences in students' ELA, Science or Social Studies PACT scores based upon whether or not the program allowed time for physical activity.

Figure 51: Difference in Math PACT by Physical Activity for Students in All Sites



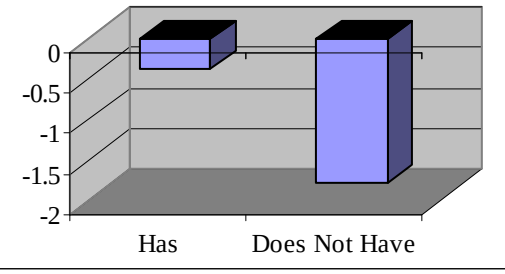
An independent samples t-test indicates that there is a significant difference between yearly referrals for students in sites that incorporate physical activity into their schedule compared to students in sites that do not incorporate physical activity (t=2.83, df=289.0, p=0.005). The average difference in yearly referrals for students in sites that have physical activity was an increase of 0.54 referrals (n=1010, SD=3.38). The average difference in yearly referrals for students in sites that do not have physical activity was an increase of 1.29 referrals (n=206, SD=3.49). Therefore, students in sites that incorporate physical activity into their schedule had a smaller increase in yearly referrals than students in sites that do not have physical activity. (See Figure 52.)

Figure 52: Differences in Referrals by Physical Activity for Students in All Sites



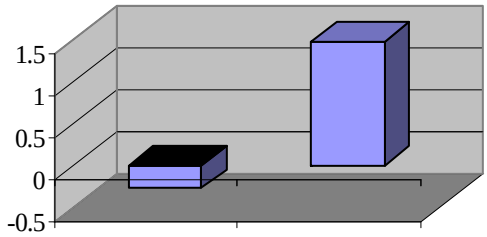
An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different between sites that incorporate physical activity into their schedule and sites that do not incorporate physical activity (t=-2.31, df=2315, p=0.021). The average difference in math grades for students in sites that have physical activities was a decrease of 0.37 points (n=1944, SD=11.13). The average difference in math grades for students in sites that do not have physical activities was a decrease of 1.77 points

Figure 53: Difference in Math Grades by Physical Activity for Students in All Sites



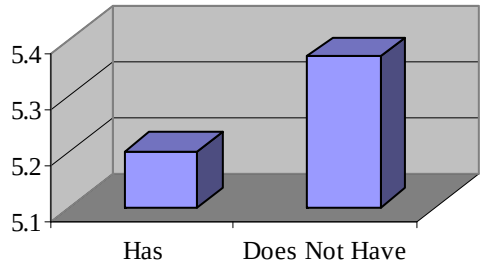
(n=373, SD=8.22). Therefore, students in sites that incorporate physical activity into their schedule had a smaller decrease in their math grades than students in sites that do not incorporate physical activity. (See Figure 53.)

Figure 54: Difference in Science Grades by Physical Activity for Students in All Sites



An independent samples t-test indicates that the difference between the first and last grading period science grades is significantly different between sites that incorporate physical activity into their schedule and sites that do not incorporate physical activity (t=2.45, df=2112, p=0.015). The average difference in science grades for students in sites that have physical activities was a decrease of 0.27 points (n=1803, SD=11.97). The average difference in science grades for students in sites that do not have physical activities was an increase of 1.47 points (n=311, SD=9.03). Therefore, students in sites that incorporate physical activity into their schedule had a decrease in their science grades, whereas students in sites that do not incorporate physical activity had an increase in science grades. (See Figure 54.)

Figure 55: Classroom Performance by Physical Activity for Students in All Sites



An independent samples t-test indicates that there is a significant difference in classroom performance for students in sites that incorporate physical activity into their schedules compared to students in sites that do not incorporate physical activity into their schedules (t=2.41, df=2552, p=0.016). The average improvement in classroom performance for students in sites that have physical activity was 5.2 points (n=2281, SD=1.10), which was about a slight improvement. The average improvement in classroom performance for students in sites that do not have physical activity was 5.37 (n=273, SD=1.18), which was slightly more than a slight improvement. Therefore, students in sites that do not incorporate physical activity into their schedules had greater improvement in classroom performance than students in sites that have physical activities. (See Figure 55.)

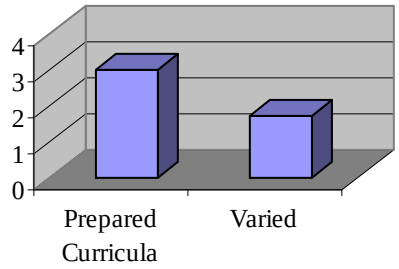
Type of Curricula

There are no significant differences in students' ELA, Math, Science or Social Studies PACT scores based upon the type of curricula used by the site.

A One-way ANOVA comparison of means indicates that there is a significant difference between yearly absences for students in sites that vary between using prepared curricula and developing their own lesson plans and students in sites that primarily use prepared curricula (F=3.09, df=2, p=0.046). The average difference in yearly absences for students in sites that vary in their curricula was an increase of 1.74 days (n=849, SD=7.66). The average difference in yearly absences for students in sites that primarily use prepared curricula was an increase of 3.04 days (n=253, SD=7.46).

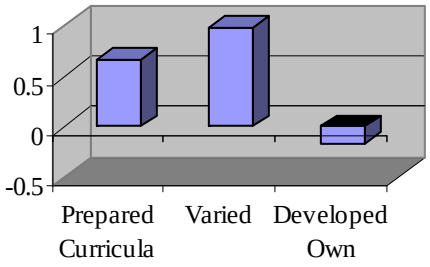
Therefore, students in sites that used varied styles of curricula had a smaller increase in yearly absences than those in sites that primarily used prepared curricula. (See Figure 56.)

Figure 56: Difference in Absences by Type of Curricula for Students in All Sites



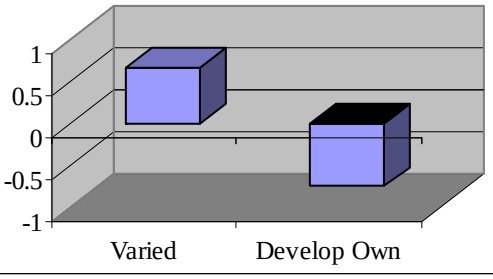
A One-way ANOVA comparison of means indicates that there is a significant difference between yearly referrals for students in sites that develop their own plans and those with varied styles of curricula and prepared curricula (F=12.18, df=2, p=0.000). The average difference in yearly referrals for students in sites that develop their own lesson plans was a decrease of 0.16 referrals (n=291, SD=2.25), whereas the average difference for students in sites that vary in their curricula was an increase of 0.99 referrals (n=745, SD=4.00), and the average difference for students in sites that primarily use prepared curricula was an increase of 0.66 referrals (n=180, SD=1.64). Therefore, students in sites that develop their own plans had a decrease in referrals, while students in sites that primarily used prepared curricula or used varied styles of curricula had increases in referrals. (See Figure 57.)

Figure 57: Difference in Referrals by Type of Curricula for Students in All Sites



A Oneway ANOVA comparison of means indicates that the difference between first and last quarter science grades is significantly different between two of the types of curricula used by the site staff (F=3.71, df=2, p=0.025). The average difference in science grades for those students in sites that varied between prepared curricula and plans they developed themselves was a decrease of 0.76 points (n=1015, SD=9.68). This average is significantly greater than the difference in science grades of students in sites where staff developed their own lesson plans (mean=-0.76, n=867, SD=13.94, p=0.022). Therefore, the science grades of students in sites where staff used a varied approach increased, while the science grades of students in sites in which staff developed their own lesson plans decreased. (See Figure 58.)

Figure 58: Difference in Science Grades by Type of Curricula for Students in All Sites

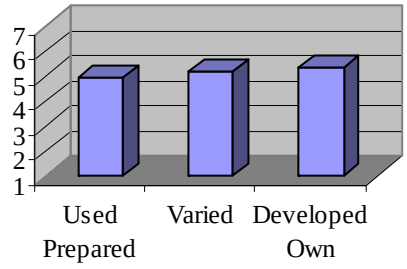


There are no significant differences in students' ELA, math, or social studies grades based upon the type of curricula used by the site.

Oneway ANOVA comparison of means indicates that there is a significant difference in classroom performance based upon type of curricula used (F=14.91, df=2, p=0.000). The average improvement in classroom performance for students in sites where the staff prepare their

own curricula was 5.34 (n=890, SD=1.14). This average is significantly greater than the average improvement of students in sites where the staff varied between using prepared curricula and developing their own lesson plans (mean=5.19, n=1291, SD=1.02, p=0.004) and significantly greater than the average improvement of students in sites where the staff used prepared curricula (mean=4.96, n=326, SD=1.27, p=0.000). Furthermore, the average improvement of students in sites where the staff used both prepared curricula and developed their own lesson plans was significantly greater than the average improvement of students in site where the staff used only prepared curricula (p=0.003). Therefore, the average improvement in classroom performance was greatest for students in sites where staff developed their own lesson plans, followed by students in sites where the staff used a varied approach. Students in sites where the staff used prepared curricula had the smallest average improvement. (See Figure 59.)

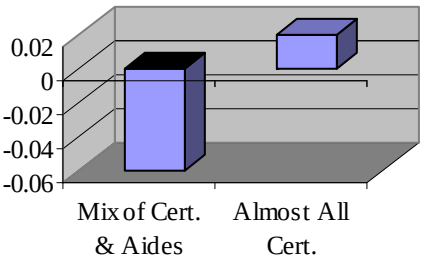
Figure 59: Classroom Performance by Type of Curricula for Students in All Sites



Staff Certification

A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Math PACT scores is significantly different between two of the categories of staff certification (F=3.63, df=2, p=0.027). The average difference in Math PACT scores for students in sites that had a mix of certified teachers and aides was a decrease of 0.06 points (n=524, SD=0.64). This average is significantly lower than the difference in Math PACT scores of students in sites where almost all of the teachers are certified (mean=0.02, n=951, SD=0.66, p=0.047). Therefore, the Math PACT scores for students in sites that had almost all certified teachers increased more than Math PACT scores for students in sites that had a mix of certified teachers and aides. (See Figure 60.)

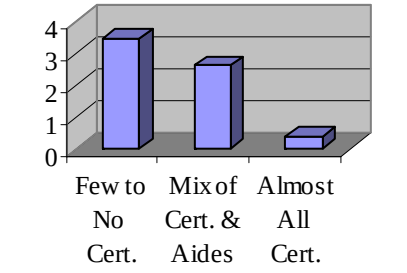
Figure 60: Difference in Math PACT Scores by Staff Certification for Students in All Sites



There are no significant differences in students' ELA, Science or Social Studies PACT scores according to the level of staff certification.

A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different for each level of staff certification (F=20.36, df=2, p=0.000). The average difference in yearly absences for students in sites that had primarily certified teachers was an increase of

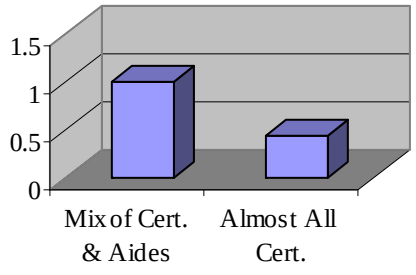
Figure 61: Difference in Absences by Staff Certification for Students in All Sites



0.37 days (n=505, SD=0.37). This average is significantly lower than the difference in yearly absences of students in sites where there was a mix of certified teachers and aides (mean=2.63, n=602, SD=7.75, p=0.000) and where the site has few to no certified teachers (mean=3.48, n=285, SD=6.89, p=0.000). Therefore, the yearly absences for students in sites that had almost all certified teachers increased less than the absences for students in other sites. (See Figure 61.)

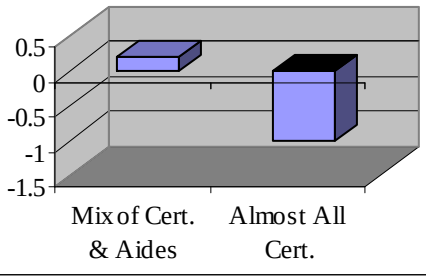
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different between two types of staff certification (F=4.51, df=2, p=0.011). The average difference in yearly referrals for students in sites that had primarily certified teachers was an increase of 0.44 referrals (n=491, SD=4.26). This average is significantly lower than the difference in yearly referrals of students in sites where there was a mix of certified teachers and aides (mean=1.01, n=511, SD=2.99, p=0.023). Therefore, the yearly referrals for students in sites that had almost all certified teachers increased less than the referrals for students in sites where there was a mix of certified teachers and aides. (See Figure 62.)

Figure 62: Difference in Referrals by Level of Staff Certification for Students in All Sites



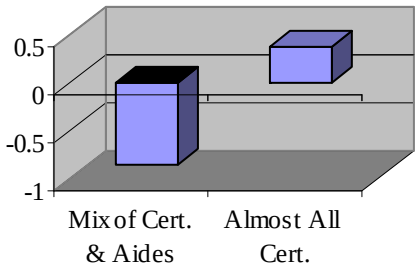
A Oneway ANOVA comparison of means indicates that the difference between first and last quarter math grades is significantly different between two types of staff certification (F=3.89, df=2, p=0.021). The average difference in math grades for students in sites that had primarily certified teachers was a decrease of 1.01 points (n=1408, SD=8.42), whereas the math grades of students in sites where there was a mix of certified teachers and aides increased by an average of 0.18 points (n=859, SD=13.76, p=0.029). Therefore, students in sites where there was a mix of certified teachers and aides had more positive changes in their math grades than the students in sites that had almost all certified teachers. (See Figure 63.)

Figure 63: Difference in Math Grades by Staff Certification for Students in All Sites



A Oneway ANOVA comparison of means indicates that the difference between first and last quarter science grades is significantly different between two types of staff certification (F=3.11, df=2, p=0.045). The average difference in science grades for students in sites that had primarily certified teachers was an increase of 0.39 points (n=1347, SD=9.54). This average is significantly higher than the difference in science grades of students in sites where there was a mix of certified teachers and aides (mean=-0.87, n=717, SD=14.82, p=0.048). Therefore, the science grades for students in sites that had almost all certified teachers increased

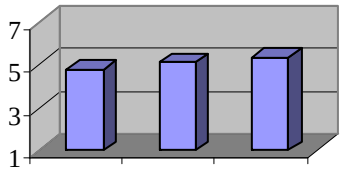
Figure 64: Difference in Science Grades by Staff Certification for Students in All Sites



more than the science grades for students in sites where there was a mix of certified teachers and aides. (See Figure 64.)

Oneway ANOVA comparison of means indicates that there is a significant difference in classroom performance based upon the level of staff certification (F=47.35, df=2, p=0.000). The average improvement in classroom performance for students in programs where few to none of the staff are certified was 4.78 (n=337, SD=1.24). This average is significantly lower than the average improvement of students in programs that had a mix of certified teachers and aides (mean=5.12, n=889, SD=1.11, p=0.000) and than the average improvement in students in sites that had almost all certified teachers (mean=5.39, n=1328, SD=1.1.03, p=0.000). Furthermore, the average improvement for students in sites that had a mix of certified teachers and aides is significantly lower than the average improvement of students in sites that had almost all certified teachers (p=0.000). Therefore, the average improvement in classroom performance was greatest for students who attended sites that had almost all certified teachers, followed by students in sites with a mix of certified teachers and aides, then by students in sites that have few to no certified teachers. (See Figure 65.)

Figure 65: Classroom Performance by Staff Certification for Students in All Sites

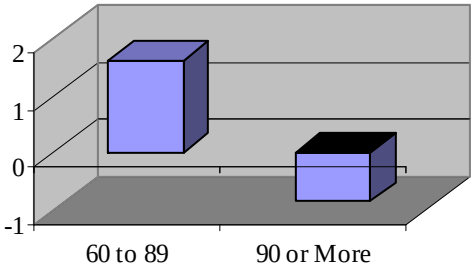


Days Present in the Program

There are no significant relationships between the difference in students' PACT scores and the number of days the student was present in the program. There were also no significant relationships between the difference in students' absences and referrals and the number of days the student was present in the program.

A Oneway ANOVA comparison of means indicates that the difference between first and last grading period science grades is significantly different according to the number of days the students was present in the after school program (F=6.28, df=3, p=0.000). The average difference in science grades for students who attended 60 to 89 days was an increase of 1.61 points (n=644, SD=10.09). This average is significantly higher than the difference in science grades for students who attended 90 or more days (mean=-0.85, n=976, SD=12.62, p=0.000). Therefore, the science grades for students who attended 60 to 89 days increased, while the science grades for students who attended 90 or more days decreased. (See Figure 66.)

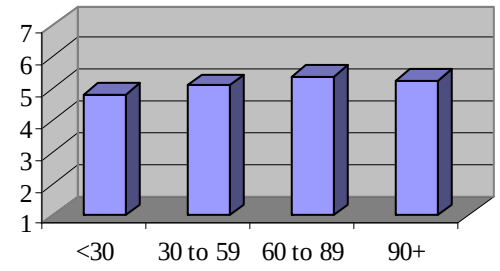
Figure 66: Difference in Science Grades by Number of Days Present for Students in All Sites



There are no significant relationships between the difference in students' ELA and math grades and the number of days the student was present in the program.

A Oneway ANOVA comparison of means indicates that there is a significant difference in classroom performance according to the number of days the students was present in the after school program (F=20.26, df=3, p=0.000). The average improvement in classroom performance for students who attended fewer than 30 days was 4.82 (n=239, SD=1.16), which was between no change and a slight improvement. This average is significantly lower than the average improvement of students who attended 30 to 59 days (mean=5.11, n=605, SD=1.05, p=0.003), 60 to 89 days (mean=5.39, n=852, SD=1.01, p=0.000), and 90 or more days (mean=5.26, n=1529, SD=1.13, p=0.000). The average improvement for students who attended 30 to 59 days is significantly lower than the average improvement of students who attended 60 to 89 days (p=0.000) and lower than the average improvement of students who attended 90 or more days (p=0.019). The average improvement for students who attended 60 to 89 days is significantly higher than the average improvement of students who attended 90 or more days (p=0.031). Therefore, the average improvement in classroom performance was highest for students who attended 60 to 89 days, followed by the average improvement of students who attended 90 or more days and by the average improvement of students who attended 30 to 59 days. The average improvement for students who attended fewer than 30 days was significantly less than that of a student who attended 30 days or more in all sites. (See Figure 67.)

Figure 67: Difference in Absences by Number of Days Present for Students in All Sites



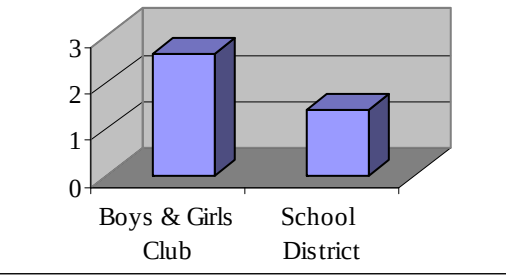
Influence of Extraneous Variables

Community Demographics

There are no significant relationships between the difference in students' PACT scores and the type of organization that sponsored the program site.

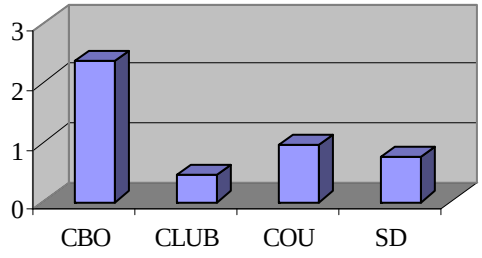
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different for two of the types of sponsoring organizations (F=2.97, df=3, p=0.031). The average difference in absences for students who attended a site sponsored by a school district was an increase of 1.41 days (n=1216, SD=7.48). This average is significantly less than the difference in absences for students who attended a site sponsored by a Boys and Girls Club (mean=2.63, n=323, SD=7.33, p=0.034). Therefore, absences for students who attended a site sponsored by a school district increased less than the absences for students who attended a site sponsored by a Boys and Girls Club. (See Figure 68.)

Figure 68: Difference in Absences by Sponsoring Organization for Students in All Sites



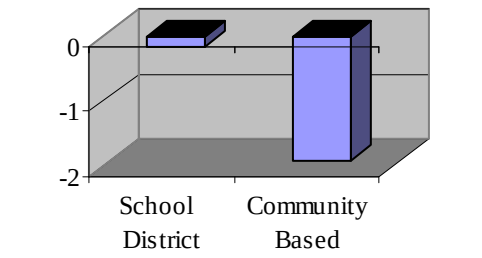
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 referrals is significantly different for each type of sponsoring organization (F=5.61, df=3, p=0.001). The average difference in discipline referrals for students who attended a site sponsored by a community based organization (CBO) was an increase of 2.36 referrals (n=58, SD=2.88). This average is significantly greater than the difference in discipline referrals for students who attended a site sponsored by a Boys and Girls Club (CLUB) (mean=0.45, n=249, SD=1.87, p=0.000), students who attended a site sponsored by a college or university (COU) (mean=0.96, n=179, SD=2.78, p=0.024), and students who attended a site sponsored by a school district (SD) (mean=0.75, n=1119, SD=3.58, p=0.001). Therefore, referrals for students who attended a site sponsored by a community based organization increased more than the referrals for students who attended sites sponsored by other organizations. (See Figure 69.)

Figure 69: Differences in Discipline Referrals by Sponsoring Organization for Youth in All Sites



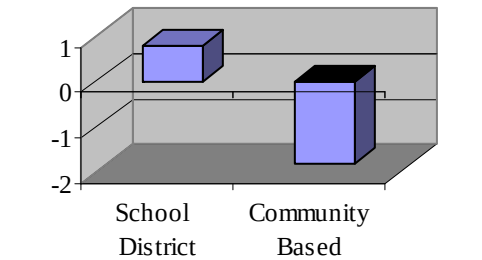
A Oneway ANOVA comparison of means indicates that the difference between first and last grading period math grades is significantly different for two of the types of sponsoring organizations (F=3.85, df=4, p=0.004). The average difference in math grades for students who attended a site sponsored by a school district was a decrease of 0.15 points (n=2284, SD=8.65). This average decrease is significantly less than the average difference in math grades for students who attended a site sponsored by a community based organization (mean=-1.94, n=345, SD=17.82, p=0.021). Therefore, math grades for students who attended a site sponsored by a school district decreased less than the math grades for students who attended a site sponsored by a community based organization. (See Figure 70.)

Figure 70: Difference in Math Grades by Sponsoring Organization for Youth in All Sites



A Oneway ANOVA comparison of means indicates that the difference between first and last grading period science grades is significantly different for two of the types of sponsoring organizations (F=7.07, df=4, p=0.000). The average difference in science grades for students who attended a site sponsored by a school district was an increase of 0.76 points (n=2080, SD=9.74). This average is significantly greater than the average difference in science grades for students who attended a site sponsored by a community based organization (mean=-1.82, n=343, SD=18.9, p=0.001). Therefore, science grades for students who attended a site sponsored by a school district increased, while the science grades for students who attended a site sponsored by a community based organization decreased. (See Figure 71.)

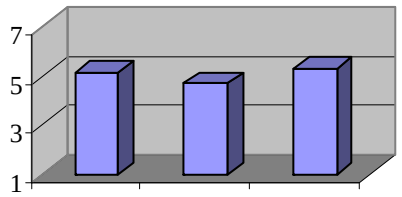
Figure 71: Difference in Science Grades by Sponsoring Organization for Youth in All Sites



A Oneway ANOVA comparison of means shows that there is a significant difference in classroom performance according to the sponsoring organization (F=23.25, df=4, p=0.000). The average improvement in classroom performance for students that attended a site sponsored by a Boys & Girls Club was 4.69 (n=305, SD=1.26). This average is significantly lower than the improvement for students who attended a site sponsored by a community based organization (mean=5.13, n=192, SD=1.20, p=0.000) and those who attended a site sponsored by a school district (mean=5.31, n=2476, SD=1.06, p=0.002). Therefore, the average improvement in classroom performance for students who attended a program sponsored by a Boys & Girls Club was lower than the average improvement of students who attended both sites sponsored by community based organizations and sites sponsored by school districts in all sites. (See Figure 72.)

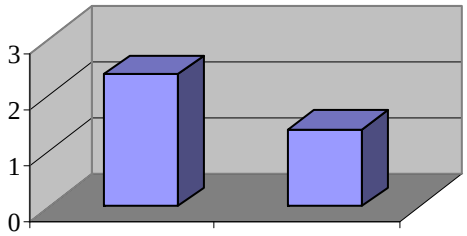
There are no significant relationships between the difference in students' ELA, Math, Science, or Social Studies PACT scores and whether the site was located in a rural or urban setting.

Figure 72: Classroom Performance by Sponsoring Organization for Students in All Sites



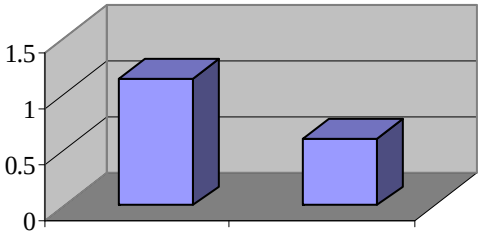
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different for sites that are located in a rural setting compared to sites that are located in an urban setting (t=2.82, df=1819, p=0.005). The average difference in yearly absences for students in sites that are located in a rural setting was an increase of 2.39 days (n=608, SD=6.70). The average difference in yearly absences for students in sites that are located in an urban setting was an increase of 1.39 days (n=1213, SD=7.39). Therefore, students in sites that were located in a rural setting had a greater increase in yearly absences than students in sites that are located in an urban setting. (See Figure 73.)

Figure 73: Difference in Absences by Site Location for Students in All Sites



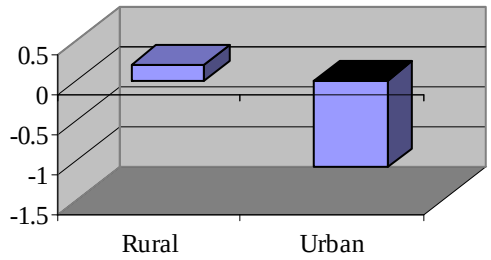
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different for sites that are located in a rural setting compared to sites that are located in an urban setting (t=3.15, df=1605, p=0.002). The average difference in yearly referrals for students in sites that are located in a rural setting was an increase of 1.15 referrals (n=545, SD=3.19). The average difference in yearly referrals for students in sites that are located in an urban setting was an increase of 0.61 referrals (n=1062, SD=3.36). Therefore, students in sites that were located in a rural setting had a greater increase in yearly referrals than students in sites that are located in an urban setting. (See Figure 74.)

Figure 74: Difference in Referrals by Site Location for Students in All Sites



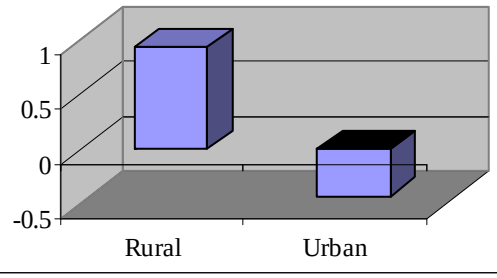
An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different for sites that are located in a rural setting compared to sites that are located in an urban setting (t=3.49, df=2922.09, p=0.000). The average difference in math grades for students in sites that are located in a rural setting was an increase of 0.2 points (n=1250, SD=8.71). The average difference in math grades for students in sites that are located in an urban setting was a decrease of 1.09 points (n=1678, SD=11.28). Therefore, students in sites that are located in a rural setting had an increase in math grades, whereas students in sites that are located in an urban setting had a decrease in math grades. (See Figure 75.)

Figure 75: Difference in Math Grades by Site Location for Students in All Sites



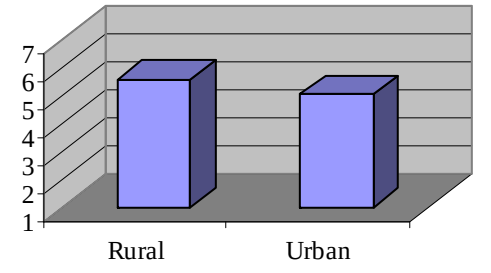
An independent samples t-test indicates that the difference between the first and last grading period science grades is significantly different for sites that are located in a rural setting compared to sites that are located in an urban setting (t=3.06, df=2694, p=0.002). The average difference in science grades for students in sites that are located in a rural setting was an increase of 0.93 points (n=1228, SD=10.07). The average difference in science grades for students in sites that are located in an urban setting was a decrease of 0.42 points (n=1468, SD=12.36). Therefore, students in sites that were located in a rural setting had an increase in science grades, whereas students in sites that are located in an urban setting had a decrease in science grades. (See Figure 76.)

Figure 76: Difference in Science Grades by Site Location for Students in All Sites



An independent samples t-test indicates that there is a significant difference in classroom performance for students in sites that are located in a rural setting compared to students in sites that are located in an urban setting (t=14.08, df=3223, p=0.000). The average improvement in classroom performance for students in sites that are located in a rural setting was 5.57 (n=1255, SD=1.01), which was between a slight and a moderate improvement. The average improvement in classroom performance for students in sites that are located in an urban setting was 5.02 (n=1970, SD=1.1), which was a slight improvement. Therefore, students in sites that were located in a rural setting had greater average improvement in classroom performance than students in sites located in an urban setting. (See Figure 77.)

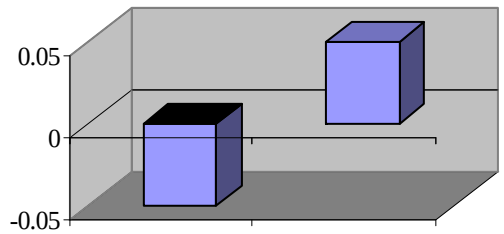
Figure 77: Classroom Performance by Site Location for Students in All Sites



Student Demographics

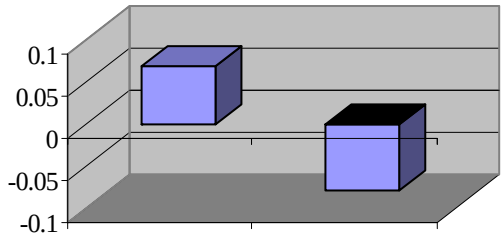
An independent samples t-test indicates that the difference between the 2005 and 2006 ELA PACT scores is significantly different for elementary school students compared to middle school students (t=-3.82, df=2051.0, p=0.000). The average difference in ELA PACT scores for students in elementary school was a decrease of 0.05 points (n=1126, SD=0.65). The average difference in ELA PACT scores for students in middle school was an increase of 0.05 points (n=931, SD=0.56). Therefore, students in elementary school experienced a decrease in ELA PACT scores, while students in middle school had an increase in ELA PACT scores. (See Figure 78.)

Figure 78: Difference in ELA PACT Scores by Grade Level for Students in All Sites



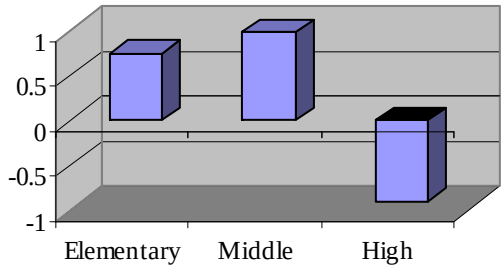
An independent samples t-test indicates that the difference between the 2005 and 2006 Math PACT scores is significantly different for elementary school students compared to middle school students (t=5.46, df=2050.5, p=0.000). The average difference in Math PACT scores for students in elementary school was an increase of 0.07 points (n=1128, SD=0.69). The average difference in Math PACT scores for students in middle school was a decrease of 0.08 points (n=933, SD=0.61). Therefore, students in elementary school experienced an increase in Math PACT scores, while students in middle school had a decrease in Math PACT scores. (See Figure 79.)

Figure 79: Difference in Math PACT Scores by Grade Level for Students in All Sites



The differences in Science and Social Studies PACT scores were not statistically significant according to the students' grade level.

Figure 80: Difference in Discipline Referrals by Grade Level for Students in All Sites



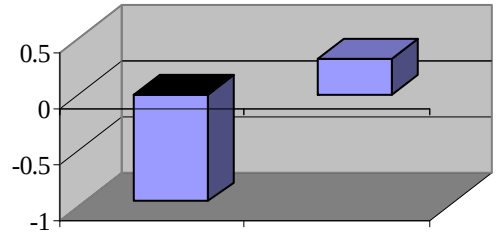
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 referrals is significantly different for each group of grade levels (F=5.33, df=2, p=0.005). The average difference in discipline referrals for students in high school was a decrease of 0.91 referrals (n=33, SD=2.02). This average was significantly less than the difference in discipline referrals for students in elementary school (mean=0.75, n=1039, SD=3.12, p=0.013) and students in middle school (mean=0.98, n=535, SD=3.69, p=0.004). Therefore, referrals for students in high school decreased, whereas the referrals for students in middle school increased. (See Figure 80.)

The difference in yearly absences was not statistically significant according to the students' grade level.

An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different for elementary school students compared to middle school students (F=5.02, df=2, p=0.007). The average difference in math grades for students in elementary school was a decrease of 0.96 points (n=1973, SD=9.45). The average difference in math grades for students in middle school was an increase of 0.33 points (n=938, SD=11.53). Therefore, students in elementary school experienced a decrease in math grades, while students in middle school had an increase in math grades. (See Figure 81.)

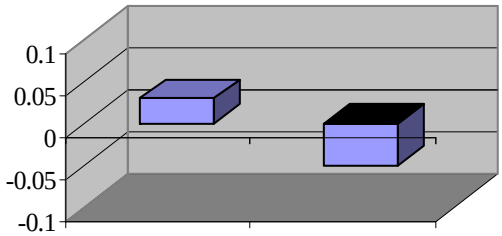
There are no significant differences in ELA or science grades based upon whether the students was in elementary, middle or high school for students in all sites. There are no significant differences in classroom performance based upon whether the students was in elementary, middle or high school for students in all sites.

Figure 81: Difference in Math Grades by Grade Level for Students in All Sites



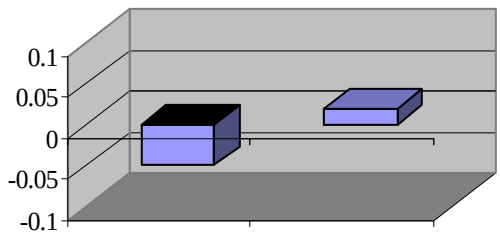
An independent samples t-test indicates that the difference between 2005 and 2006 ELA PACT scores is significantly different for male and female students (t=2.81, df=2055, p=0.005). The average difference in ELA PACT scores for female students was an increase of 0.03 points (n=1062, SD=0.61). The average difference in ELA PACT scores for male students was a decrease of 0.05 points (n=995, SD=0.61). Therefore, male students experienced a decrease in ELA PACT scores, while female students had an increase in ELA PACT scores. (See Figure 82.)

Figure 82: Difference in ELA PACT Scores by Gender for Students in All Sites



An independent samples t-test indicates that the difference between 2005 and 2006 Science PACT scores is significantly different for male and female students (t=-2.35, df=2042, p=0.019). The average difference in Science PACT scores for female students was a decrease of 0.05 points (n=1061, SD=0.66). The average difference in Science PACT scores for male students was an increase of 0.02 points (n=983, SD=0.65). Therefore, female students experienced a decrease in Science PACT scores, while male students had an increase in Science PACT scores. (See Figure 83.)

Figure 83: Difference in Science PACT Scores by Gender for Students in All Sites

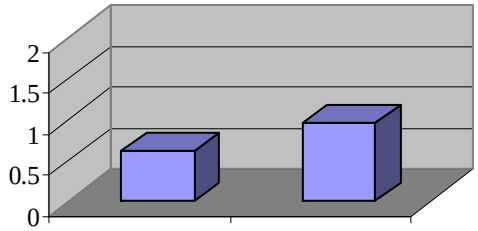


There are no significant differences in Math or Science PACT scores by gender.

An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different for male and female students (t=-2.10, df=1407.2, p=0.036). The average difference in discipline referrals for female students was an increase of 0.62 referrals (n=791, SD=2.55). The average difference in discipline referrals for male students was an increase of 0.96 referrals (n=816, SD=0.96). Therefore, female students experienced a smaller increase in discipline referrals than male students. (See Figure 84.)

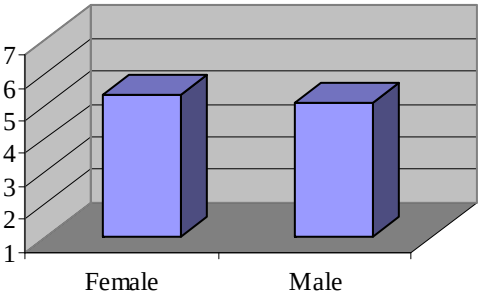
There are no significant differences in absences by gender.

Figure 84: Difference in Discipline Referrals by Gender for Students in All Sites



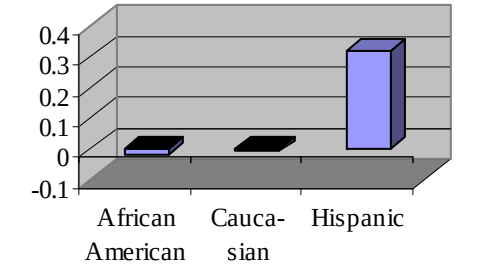
An independent samples t-test indicates that there is a significant difference between classroom performance based upon gender (t=6.81, df=3223, p=0.000). The average improvement in classroom performance for females was 5.37 (n=1605, SD=1.08). The average improvement in classroom performance for males was 5.10 (n=1620, SD=1.10). Therefore, female students' average improvement in classroom performance was higher than male students' average improvement in classroom performance. (See Figure 85.)

Figure 85: Classroom Performance by Gender for Students in All Sites



A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 ELA PACT scores is significantly different by ethnicity (F=4.68, df=3, p=0.003). The average difference in ELA PACT scores for Hispanic students was an increase of 0.32 points (n=47, SD=0.52). This average is significantly higher than the average difference in ELA PACT scores for Caucasian students (mean=-0.01, n=670, SD=0.65, p=0.002) and for African American students (mean=-0.02, n=1320, SD=0.59, p=0.001). Therefore, the ELA PACT scores for Hispanic students increased, while the ELA PACT scores for Caucasian students and African American students decreased. (See Figure 86.)

Figure 86: Difference in ELA PACT Scores by Ethnicity for Students in All Sites



A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 Math PACT scores is significantly different by ethnicity (F=10.99, df=3, p=0.000). The average difference in Math PACT scores for African American students was a decrease of 0.05 points (n=1321, SD=0.65). This average is significantly less than the average difference in Math PACT scores for Caucasian students (mean=0.08, n=670, SD=0.66, p=0.000), Hispanic students (mean=0.24, n=50, SD=0.80,

p=0.012), and for students of other ethnicities (mean=0.45, n=20, SD=0.59, p=0.76). Therefore, the Math PACT scores for African American students decreased, while the Math PACT scores for all other students increased. (See Figure 87.)

A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 Social Studies PACT scores is significantly different by ethnicity (F=5.09, df=3, p=0.002). The average difference in Social Studies PACT scores for Hispanic students was an increase of 0.21 points (n=47, SD=0.72). This average is significantly higher than the average difference in Social Studies PACT scores for Caucasian students (mean=-0.10, n=662, SD=0.72, p=0.019). Therefore, the Social Studies PACT scores for Hispanic students increased, while the Social Studies PACT scores for Caucasian students decreased. (See Figure 88.)

A Oneway ANOVA comparison of means indicates that the difference in 2004-2005 and 2005-2006 absences is significantly different by ethnicity (F=4.67, df=3, p=0.003). The average difference in absences for African American students was an increase of 2.11 days (n=1308, SD=6.94). This average is significantly higher than the average difference in absences for Caucasian students (mean=0.66, n=452, SD=7.46, p=0.001). Therefore, the absences for African American students increased more than the absences for Caucasian students. (See Figure 89.)

There are no significant differences in referrals based upon ethnicity for students in all sites. There are no significant differences in grades based upon ethnicity for students in all sites.

A Oneway ANOVA comparison of means indicates that there is a significant difference in classroom performance based upon the ethnicity of the student (F=10.14, df=3, p=0.000). The average improvement in classroom performance for Hispanic students was 5.76 (n=113, SD=0.93), which was almost a moderate improvement. This average is significantly higher than the average improvement in classroom performance for African American

Figure 87: Difference in Math PACT Scores by Ethnicity for Students in All Sites

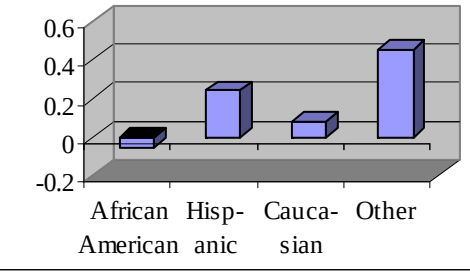


Figure 88: Difference in Social Studies PACT Scores by Ethnicity for Students in All Sites

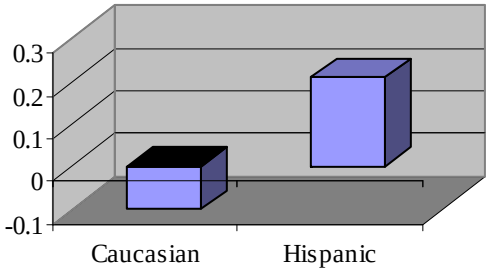


Figure 89: Difference in Absences by Ethnicity for Students in All Sites

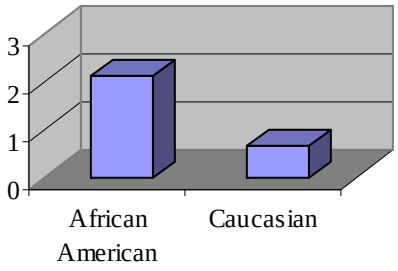
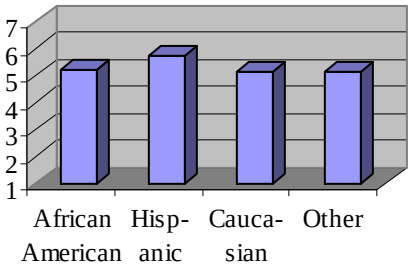


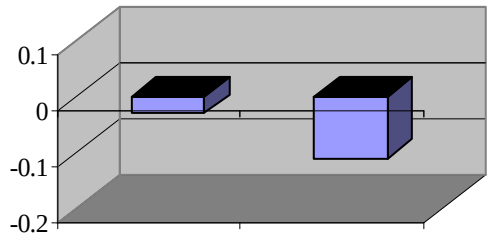
Figure 90: Classroom Performance by Ethnicity for Students in All Sites



students (mean=5.24, n=2136, SD=1.10, p=0.000), Caucasian students (mean=5.16, n=940, SD=1.09, p=0.000), and students of other ethnicities (mean=5.14, n=36, SD=1.26, p=0.017). Therefore, the average improvement in classroom performance was greatest for Hispanic students. (See Figure 90.)

An independent samples t-test indicates that the difference between 2005 and 2006 Social Studies PACT scores is significantly different based on lunch status (t=-2.03, df=727.8, p=0.042). The average difference in Social Studies PACT scores for students who receive free or reduced lunch was a decrease of 0.03 points (n=1547, SD=0.69). The average difference in Social Studies PACT scores for students who pay regular price for lunch was a decrease of 0.11 points (n=476, SD=0.77). Therefore, students who receive free or reduced lunch had a significantly smaller decrease in their Social Studies PACT scores than did students who pay regular price for lunch. (See Figure 91.)

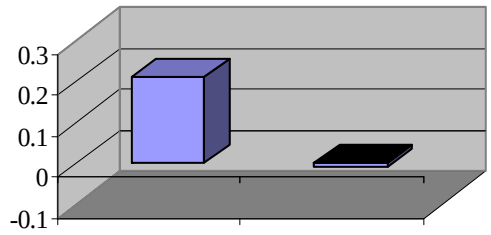
Figure 91: Difference in Social Studies PACT Scores by Lunch Status for Students in All Sites



There are no significant differences for ELA, Math or Science PACT scores according to the students' lunch status. There were also no significant differences in absences, referrals, grades in school, or classroom performance according to the students' lunch status.

An independent samples t-test indicates that the difference between 2005 and 2006 ELA PACT scores is significantly different based on LEP status (t=2.07, df=2055, p=0.039). The average difference in ELA PACT scores for students who have a Limited English Proficiency (LEP) was an increase of 0.21 points (n=34, SD=0.48). The average difference in ELA PACT scores for students do not have a Limited English Proficiency was a decrease of 0.01 points (n=2023, SD=0.61). Therefore, students who have a Limited English Proficiency have increased their ELA PACT scores more than the remaining population of students. (See Figure 92.)

Figure 92: Difference in ELA PACT Scores by LEP Status for Students in All Sites

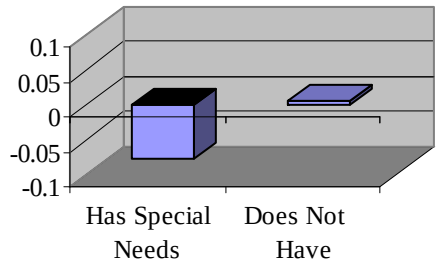


There are no significant differences for Math, Science, or Social Studies PACT scores according to the students' LEP status. There were also no significant differences in absences, referrals, grades in school, or classroom performance according to the students' LEP status.

An independent samples t-test indicates that the difference between 2005 and 2006 ELA PACT scores is significantly different based on special needs status (t=2.28, df=2055, p=0.022). The average difference in ELA PACT scores for students who are reported as having a special need was a decrease of 0.08 points (n=333, SD=0.61). The average difference in ELA PACT scores for students who do not have a special need was an increase of 0.01 points (n=1724, SD=0.61). Therefore, students who are reported as having a special need had a decrease in their ELA PACT

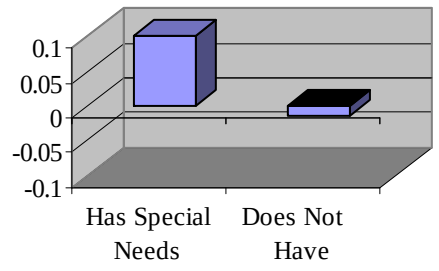
scores whereas the ELA PACT scores for students who do not have a special need remained about the same. (See Figure 93.)

Figure 93: Difference in ELA PACT Scores by Special Needs Status for Students in All Sites



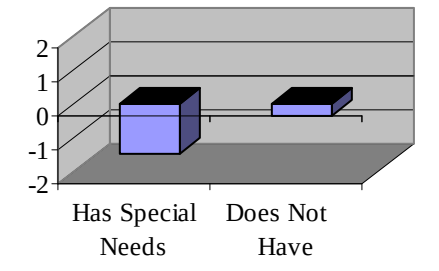
An independent samples t-test indicates that the difference between 2005 and 2006 Math PACT scores is significantly different based on special needs status (t=-2.98, df=2059, p=0.003). The average difference in Math PACT scores for students who are reported as having a special need was an increase of 0.10 points (n=333, SD=0.60). The average difference in Math PACT scores for students who do not have a special need was a decrease of 0.02 points (n=1728, SD=0.67). Therefore, students who are reported as having a special need had an increase in their Math PACT scores whereas the Math PACT scores for students who do not have a special need remained about the same. (See Figure 94.)

Figure 94: Difference in Math PACT Scores by Special Needs Status for Students in All Sites



There are no significant differences in Science and Social Studies PACT scores according to the students' special needs status. There were also no significant differences in absences or referrals according to the students' special needs status.

Figure 95: Difference in Math Grades by Special Needs Status for Students in All Sites



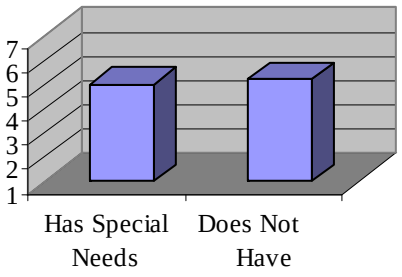
An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different for students with a special need compared to students without a special need (t=2.14, df=2862, p=0.032). The average difference in math grades for students with a special need was a decrease of 1.44 points (n=520, SD=10.58). The average difference in math grades for students without a special need was a decrease of 0.37 points (n=2344, SD=10.23). Therefore, students with a special need experienced a significantly greater decrease in math grades than students without a special need. (See Figure 95.)

There are no significant differences in ELA or Science grades by special needs status.

An independent samples t-test indicates that there is a significant difference between classroom performance based upon special needs status (t=4.73, df=3161, p=0.000). The average improvement in classroom performance for students with a special need was 5.04 (n=626,

SD=1.09). The average improvement in classroom performance for students without a special need was 5.27 (n=2537, SD=1.10). Therefore, the average improvement in classroom performance was significantly less for students with a special need than the average improvement in classroom performance for students without a special need. (See Figure 96.)

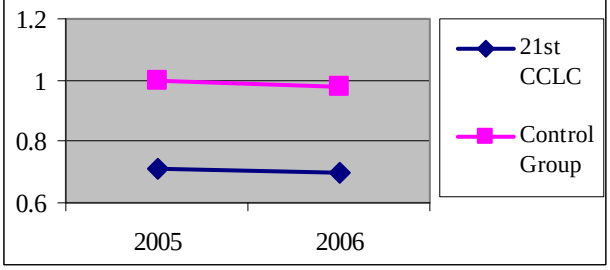
Figure 96: Classroom Performance by Special Needs Status for Students in All Sites



Comparison with Control Group

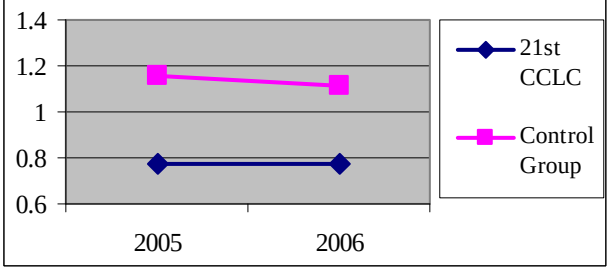
An independent samples t-test indicates that the difference between the 2005 and 2006 ELA PACT scores for students in the 21st CCLC is not significantly different from the difference in ELA PACT scores for students in the control group (t=-0.155, df=11808, p=0.877). Students in the 21st CCLC program had an average score of 0.71 (n=1938, SD=0.73) on the 2005 ELA PACT, which was just below Basic. These same students had an average score of 0.70 (SD=0.71) on the 2006 ELA PACT. This was an average decrease of 0.01 points (SD=0.60). Students in the control group had an average score of 1.0 (n=9872, SD=0.81) on the 2005 ELA PACT, which was Basic. These same control group students had an average score of 0.98 (SD=0.79) on the 2006 ELA PACT. This was also an average decrease of 0.01 points (SD=0.61). Therefore, students in the 21st CCLC program experienced almost the same decrease in ELA PACT scores as other students in the same schools. (See Figure 97.)

Figure 97: Control Group Comparison of the Difference in ELA PACT Scores



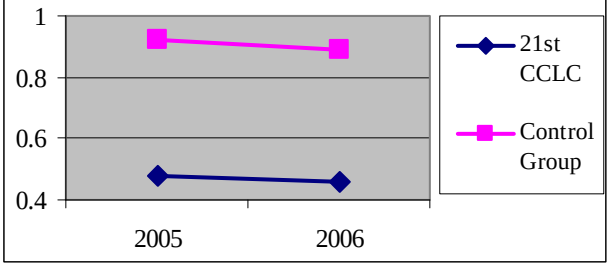
An independent samples t-test indicates that the difference between the 2005 and 2006 Math PACT scores for students in the 21st CCLC is significantly different from the difference in Math PACT scores for students in the control group (t=-3.23, df=2783.83, p=0.001). Students in the 21st CCLC program had an average score of 0.77, which was just below Basic, on the 2005 Math PACT (n=1940, SD=0.77) and on the 2006 Math PACT (SD=0.79). This was an average increase of 0.002 points (SD=0.66). Students in the control group had an average score of 1.16 (n=9885, SD=0.93) on the 2005 Math PACT, which was just above Basic. These same control group students had an average score of 1.11 (SD=0.96) on the 2006 Math PACT. This was an average decrease of 0.05 points (SD=0.67). Therefore, while the Math PACT scores of students in the 21st CCLC program remained relatively the same, students in the control group experienced a decrease in Math PACT scores. (See Figure 98.)

Figure 98: Control Group Comparison of the Difference in Math PACT Scores



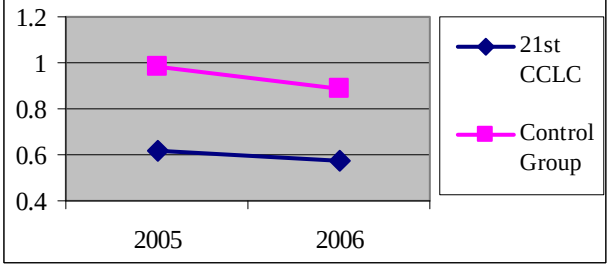
An independent samples t-test indicates that the difference between the 2005 and 2006 Science PACT scores for students in the 21st CCLC is not significantly different from the difference in Science PACT scores for students in the control group (t=-1.14, df=2981.7, p=0.253). Students in the 21st CCLC program had an average score of 0.48 (n=1932, SD=0.71) on the 2005 Science PACT, which was between Below Basic and Basic. These same students had an average score of 0.46 (SD=0.72) on the 2006 Science PACT. This was an average decrease of 0.02 points (SD=0.65). Students in the control group had an average score of 0.92 (n=9833, SD=0.96) on the 2005 Science PACT, which was just below Basic. These same control group students had an average score of 0.89 (SD=0.96) on the 2006 Science PACT. This was an average decrease of 0.03 points (SD=0.61). Therefore, students in the 21st CCLC program experienced almost the same decrease in Science PACT scores as other students in the same schools. (See Figure 99.)

Figure 99: Control Group Comparison of the Difference in Science PACT Scores



An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores for students in the 21st CCLC is significantly different from the difference in Social Studies PACT scores for students in the control group (t=-2.57, df=2838.62, p=0.010). Students in the 21st CCLC program had an average score of 0.62 (n=1925, SD=0.72) on the 2005 Social Studies PACT, which was between Below Basic and Basic. These same students had an average score of 0.57 (SD=0.70) on the 2006 Social Studies PACT. This was an average decrease of 0.05 points (SD=0.71). Students in the control group had an average score of 0.98 (n=9831, SD=0.94) on the 2005 Social Studies PACT, which was Basic. These same control group students had an average score of 0.89 (SD=0.91) on the 2006 Social Studies PACT. This was an average decrease of 0.099 points (SD=0.75). Therefore, while the Social Studies PACT scores of students in both groups decreased, the scores of students in the 21st CCLC program decreased significantly less than the scores of other students in the same schools. (See Figure 100.)

Figure 100: Control Group Comparison of the Difference in Social Studies PACT Scores

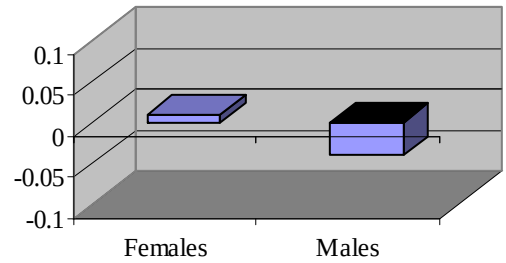


Differences by Gender

A chi-square analysis indicates that there is a significant association between the students' gender and whether they are in the 21st CCLC program or in the control group (chi-square=16.72, df=1, p=0.000). Of the 3,228 program students included in this analysis, 1,672 (52%) are female and 1,556 (48%) are male. Of the 18,981 control group students included in this analysis, 9,093 (48%) are female and 9,888 (52%) are male. Therefore, students in the 21st CCLC program are more likely to be female than students in the control group.

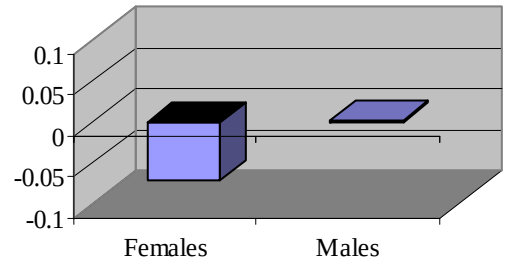
An independent samples t-test indicates that there is a significant relationship between the difference in ELA PACT scores and gender (t=4.93, df=11808, p=0.000) for all students included in this analysis (program students and control group students). The average difference in ELA PACT scores for females was an increase of 0.01 (n=5873, SD=0.61), whereas the average difference in ELA PACT scores for males was a decrease of 0.04 (n=5937, SD=0.60). Therefore, the ELA PACT scores of all female students in the schools included in this analysis increased while the ELA PACT scores of all male students in the schools included in this analysis decreased. (See Figure 101.)

Figure 101: Difference in ELA PACT Scores by Gender for All Students in All Schools



An independent samples t-test indicates that there is a significant relationship between the difference in Science PACT scores and gender (t=-5.21, df=11785.32, p=0.000) for all students included in this analysis (program students and control group students). The average difference in Science PACT scores for females was a decrease of 0.07 (n=5862, SD=0.72), whereas the average difference in Science PACT scores for males was an increase of 0.003 (n=5933, SD=0.71). Therefore, the Science PACT scores of all male students in the schools included in this analysis increased while the Science PACT scores of all female students in the schools included in this analysis decreased. (See Figure 102.)

Figure 102: Difference in Science PACT Scores by Gender for All Students in All Schools



Differences by Ethnicity

A chi-square analysis indicates that there is a significant association between the students' ethnicity and whether they are in the 21st CCLC program or in the control group (chi-square=526.07, df=3, p=0.000). Of the 3,228 program students included in this analysis, 2,139 (66.3%) are African American, 958 (29.7%) are Caucasian, 103 (3.2%) are Hispanic, and 28 (0.9%) are other ethnicities. Of the 18,980 control group students included in this analysis, 8,490 (44.7%) are African American, 9,550 (50.3%) are Caucasian, 633 (3.3%) are Hispanic, and 307 (1.6%) are other ethnicities. Therefore, students in the 21st CCLC program are more likely to be African American than students in the control group. Analyses of differences by ethnicity were conducted only for African Americans and Caucasians, as the small number of Hispanic students and students of other ethnicities in each group made the tests invalid.

An independent samples t-test indicates that there is a significant relationship between the difference in Math PACT scores and ethnicity (t=-4.97, df=11377.74, p=0.000) for all students included in this analysis (program students and control group students). The average difference in Math PACT scores for African Americans was a decrease of 0.07 (n=5359, SD=0.64), whereas the average difference in Math PACT scores for Caucasians was a decrease of 0.02 (n=6026, SD=0.70). Therefore, the Math

PACT scores of all Caucasian students in the schools included in this analysis decreased less than the Math PACT scores of all African American students in the schools included in this analysis. (See Figure 103.)

An independent samples t-test indicates that there is a significant relationship between the difference in Social Studies PACT scores and ethnicity (t=3.35, df=11349.05, p=0.000) for all students included in this analysis (program students and control group students). The average difference in Social Studies PACT scores for African Americans was a decrease of 0.07 (n=5340, SD=0.70), whereas the average difference in Social Studies PACT scores for Caucasians was a decrease of 0.12 (n=6012, SD=0.78). Therefore, the Social Studies PACT scores of all African American students in the schools included in this analysis decreased less than the Social Studies PACT scores of all Caucasian students in the schools included in this analysis. (See Figure 104.)

Figure 103: Difference in Math PACT Scores by Ethnicity for All Students in All Schools

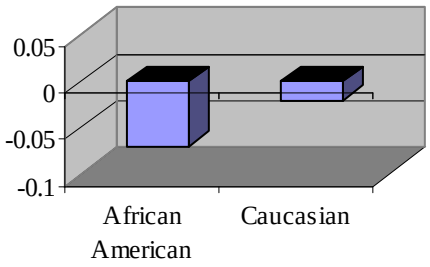
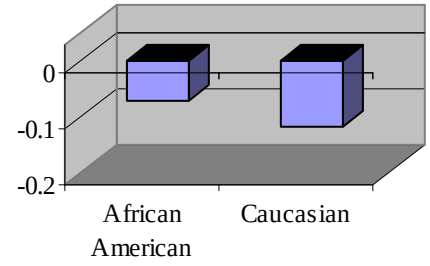


Figure 104: Difference in Social Studies PACT Scores by Ethnicity for All Students in All Schools



PART IV: INFLUENCES ON DESIRED OUTCOMES OF 21ST CCLC PROGRAMS FOR STUDENTS IN EACH IDENTIFIED CLUSTER WITHIN THE PRIMARY FACTOR

Further analyses were conducted to understand the influences of the experimental variables on the desired outcomes of 21st CCLC programs for each cluster of the primary factor, Site Policy. The method used to conduct this analysis is similar to that used for all programs (See Findings Part III of this report). The three clusters are: Child Development sites, Mixed Approach sites, and Pedagogical sites. The first step was to identify any overall changes in outcomes. The second step identified differences between the dependent variables for each cluster in the sub-factors. The third and fourth steps identified relationships between the dependent variables and each independent and extraneous variable, respectively. The final step identified the differences between the students in 21st CCLC programs and students in the control group. The methods applied to compute the "difference" variables used in steps two through five are discussed in the "Explanation of Dependent Variables" section of Findings Part II. For purposes of this report, only those relationships which were found to be significant are discussed.

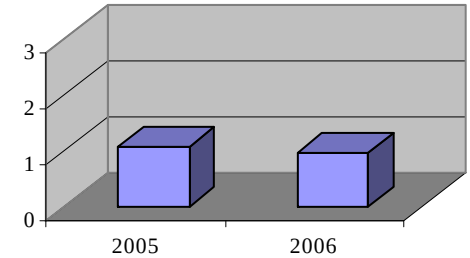
Cluster One: Child Development Sites

The first cluster of the Site Policy primary factor is the Child Development cluster. Twelve sites met the criteria for this cluster. Of these 12 sites, six sites provided data on 565 students. Of these 565 students, data for both 2005 and 2006 PACT scores were reported for 193 students in English/Language Arts (ELA), 194 students in mathematics, 194 students in science, and 194 students in social studies. Data for both 2004-2005 and 2005-2006 absences and referrals were reported for 348 students and 272 students, respectively. Data for both first and last quarter grades in school were reported for 230 students in ELA, 233 students in mathematics, and 191 students in science. Teacher surveys on classroom performance were completed for 454 students. It should be noted that the data available for analysis represents a small proportion of child development sites.

Changes in Dependent Variables

A paired samples t-test indicates that there is a significant difference between the ELA PACT scores from 2005 to 2006 for students in child development sites (t=2.493, df=192, p=0.014). The average ELA PACT score for 2005 was 1.07 (n=193, SD=0.81), which was just above Basic. The average ELA PACT score for 2006 was 0.96 (n=193, SD=0.79), which was just below Basic. Therefore, the average ELA PACT score decreased from 2005 to 2006 for students in child development sites. (See Figure 105.)

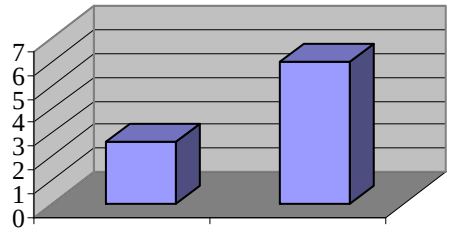
Figure 105: Difference in 2005 and 2006 ELA PACT Scores for Students in Child Devel. Sites



There are no significant differences in Math, Science or Social Studies PACT scores between 2005 and 2006.

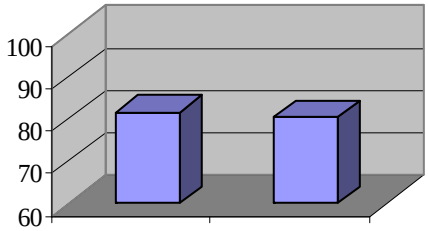
A paired samples t-test indicates that there is a significant difference between the number of absences in the 2004-2005 school year and in the 2005-2006 school year (t=-7.490, df=347, p=0.000). Students had an average of 2.62 absences (n=348, SD=5.95) during the 2004-2005 school year, whereas these same students had an average of 6.04 absences (n=348, SD=7.54) during the 2005-2006 school year. Therefore, the average number of absences increased significantly from the 2004-2005 school year to the 2005-2006 school year for students in child development sites. (See Figure 106.)

Figure 106: Average Number of Absences for Students in Child Development Sites



There are no significant differences in the number of referrals during the 2004-2005 school year and the 2005-2006 school year for students in child development sites.

Figure 107: Math Grades for Students in Child Devel. Sites



A paired samples t-test indicates that there is a significant difference between the math grades for the first and last grading period of the 2005-2006 school year for students in the child development sites (t=2.069, df=232, p=0.040). Students' average math grade for the first grading period was 81.70 (n=233, SD=10.89). Students' average math grade for the last grading period was 80.37 (n=233, SD=11.18). Therefore, students' average math grade decreased from the first to the last grading period for students in child development sites. (See Figure 107.) There are no significant differences between the first and last grading period ELA and science grades for those students in the child development sites.

A one-sample t-test indicates that the students' average improvement in classroom performance is significantly different from the test value, which was that the student did not change (t=16.91, df=453, p=0.000). The mean average improvement for students in child development sites was 5.01 (n=454, SD=1.27), which was a slight improvement, compared to the test value of 4. Therefore, students in the child development sites significantly improved their classroom performance.

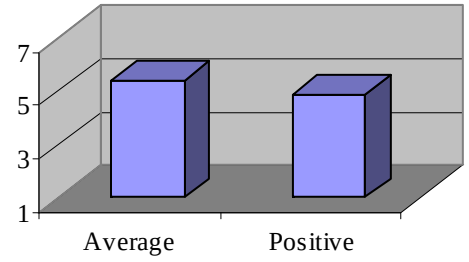
A one-sample t-test indicates that the number of items the student needed to improve on in classroom performance is significantly different from the test values, which were that the student needed to improve on all items (t=13.867, df=572, p=0.000) and that the student did not need to improve on any items (t=-79.29, df=572, p=0.000). The mean number of items that students in child development sites needed to improve on was 1.49 (n=573, SD=2.57), compared to the test value of 0 (that they needed to improve on all items) and compared to the test value of 10 (that they did not need to improve on any items). Therefore, students in the child development sites needed to improve on some aspects of classroom performance, but not on all aspects.

Influence of Sub-Factors

There are no significant differences in PACT scores, yearly absences or yearly referrals, or grades in school within each cluster of the Internal Environment factor for students in child development sites.

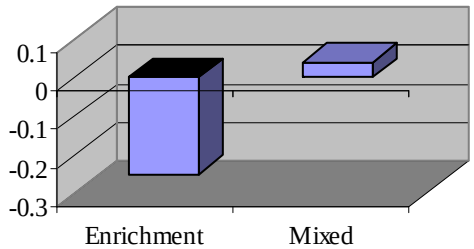
An independent samples t-test indicates that there is a significant difference between the improvement of classroom performance between two of the clusters within the Internal Environment sub-factor for students in the child development sites (t=4.149, df=168.6, p=0.000). The average improvement for students in sites with average internal environments was an increase of 5.44 points (n=91, SD=1.04), which was between a slight and a moderate improvement. The average improvement for students in sites with positive internal environments was an increase of 4.90 points (n=363, SD=1.30), which was just less than a slight improvement. Therefore, students in child development sites with average internal environments had higher average improvement than students in child development sites with positive internal environments. (See Figure 108.)

Figure 108: Improvement in Classroom Perf. by Internal Env. for Students in Child Devel. Sites



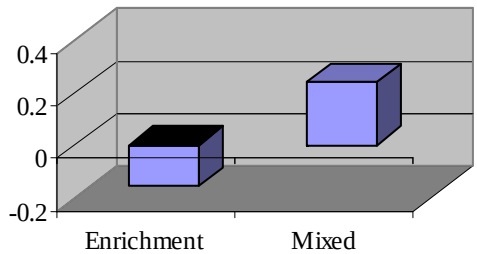
An independent samples t-test indicates that the difference in the 2005 and 2006 ELA PACT scores is significantly different between two of the clusters within the Activity Subject Area sub-factor for students in the child development sites (t=-2.519, df=102.9, p=0.013). The average difference in ELA PACT scores for students in sites with a focus on enrichment was decrease of 0.25 points (n=55, SD=0.67). The average difference in ELA PACT scores for students in sites with mixed subject areas was an increase of 0.04 points (n=57, SD=0.53). Therefore, students in child development sites with a focus on enrichment had a decrease in ELA PACT scores while students in child development sites with mixed subject areas had an increase in ELA PACT scores. (See Figure 109.)

Figure 109: Diff in ELA PACT Scores by Activity Subject Area for Students in Child Devel. Sites



An independent samples t-test indicates that the difference between the 2005 and 2006 Science PACT scores is significantly different between two of the clusters within the Activity Subject Area sub-factor for students in the child development sites (t=-2.831, df=111, p=0.006). The average difference in Science PACT scores for students in sites with a focus on enrichment was a decrease of 0.16 points (n=55, SD=0.67). The average difference in Science PACT scores

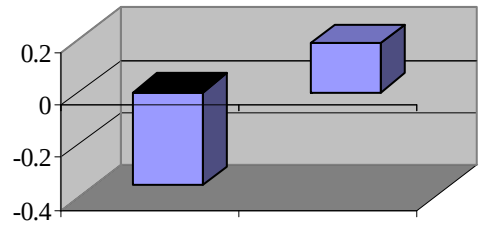
Figure 110: Diff in Science PACT Scores by Activity Subject Area for Students in Child Devel. Sites



for students in sites with mixed subject areas was an increase of 0.24 points (n=58, SD=0.73). Therefore, students in child development sites with a focus on enrichment had a decrease in Science PACT scores while students in child development sites with mixed subject areas had an increase in Science PACT scores. (See Figure 110.)

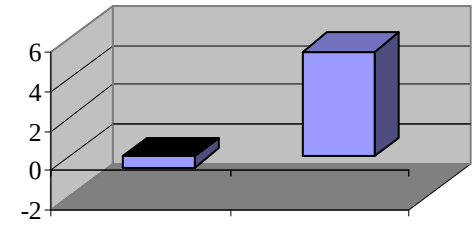
An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores is significantly different between two of the clusters within the Activity Subject Area sub-factor for students in child development sites (t=-3.882, df=111, p=0.000). The average difference in Social Studies PACT scores for students in sites with a focus on enrichment was a decrease of 0.36 points (n=55, SD=0.78). The average difference in Social Studies PACT scores for students in sites with mixed subject areas was an increase of 0.19 (n=58, SD=0.74). Therefore, students in child development sites with a focus on enrichment had a decrease in Social Studies PACT scores while students in child development sites with mixed subject areas had an increase in Social Studies PACT scores. (See Figure 111.)

Figure 111: Diff in Social Studies PACT by Activity Subject Area for Students in Child Devel. Sites



There are no significant differences in Math PACT scores within each cluster of the Activity Subject Area factor for students in child development sites.

Figure 112: Diff. in Absences by Activity Subject Area for Students in Child Development Sites



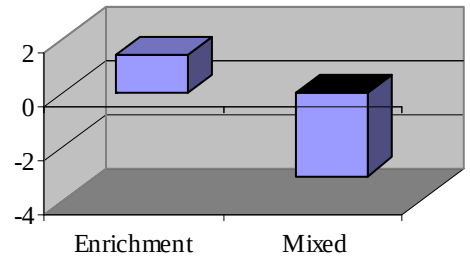
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different between two of the clusters within the Activity Subject Area sub-factor for students in the child development sites (t=-6.135, df=241.7, p=0.000). The average difference in yearly absences for students in sites with a focus on enrichment was a decrease of 0.53 absences (n=88, SD=4.37). The average difference in yearly absences for students in sites with mixed subject areas was an increase of 5.36 (n=168, SD=10.88). Therefore, students in child development sites with a focus on enrichment had a decrease in yearly absences while students in child development sites with mixed subject areas had an increase in yearly absences. (See Figure 112.)

There are no significant differences between yearly referrals within each cluster of the Activity Subject Area factor for students in child development sites.

An independent samples t-test indicates that the difference between the first and last grading period ELA grades is significantly different between two of the clusters within the Activity Subject Area sub-factor for students in the child development sites (t=2.204, df=76.6, p=0.031). The average difference in ELA grades for students in sites with a focus on enrichment was an increase of 1.44 points (n=39, SD=7.54). The average difference in ELA grades for students in

sites with mixed activity subject areas was a decrease of 3.07 points (n=44, SD=10.94). Therefore, students in child development sites with a focus on enrichment had an increase in ELA grades, while students in child development sites with mixed activity subject areas had a decrease in ELA grades. (See Figure 113.)

Figure 113: Diff. in ELA Grades by Activity Subject Area for Students in Child Development Sites



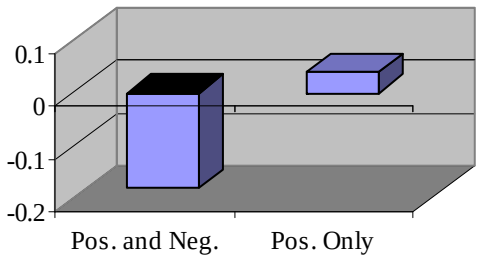
There are no significant differences between the first and last grading period math and science grades within each cluster of the Activity Subject Area sub-factor for child development sites. There are no significant differences in the improvement of classroom performance within each cluster of the Activity Subject Areas sub-factor for child development sites.

Influence of Independent Variables

Behavior Management Style

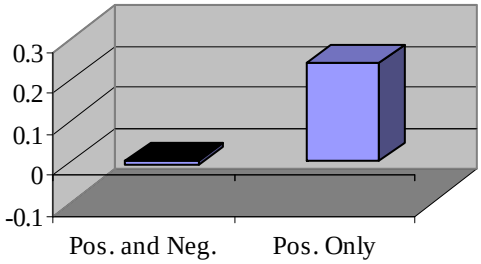
An independent samples t-test indicates that the difference in 2005 and 2006 ELA PACT scores is significantly different between two of the styles of behavior management for students in the child development sites (t=-2.330, df=130.0, p=0.021). The average difference in ELA PACT scores for students in sites that use both positive and negative behavior management was a decrease of 0.18 points (n=136, SD=0.67). The average difference in ELA PACT scores for students in sites that use only positive behavior management was an increase of 0.04 points (n=57, SD=0.53). Therefore, students in child development sites that utilize both positive and negative behavior management styles had a decrease in ELA PACT scores, while students in child development sites that utilize only positive behavior management techniques had an increase in ELA PACT scores. (See Figure 114.)

Figure 114: Difference in ELA PACT Scores by Behavior Mgmt for Students in Child Devel. Sites



An independent samples t-test indicates that the difference in 2005 and 2006 Science PACT scores is significantly different between two of the styles of behavior management for students in the child development sites (t=-2.208, df=101.2, p=0.030). The average difference in Science PACT scores for students in sites that used both positive and negative behavior management was a decrease of 0.01 points (n=136, SD=0.68). The average difference in Science PACT scores for students in sites that

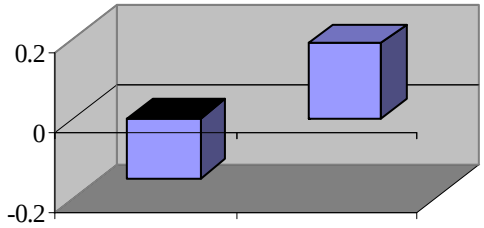
Figure 115: Diff. in Science PACT Scores by Behavior Mgmt. Style for Students in Child Devel. Sites



used only positive behavior management was an increase of 0.24 points (n=58, SD=0.73). Therefore, students in child development sites that utilized both positive and negative behavior management styles had a decrease in Science PACT scores, while students in child development sites that utilized only positive behavior management styles had an increase in Science PACT scores. (See Figure 115.)

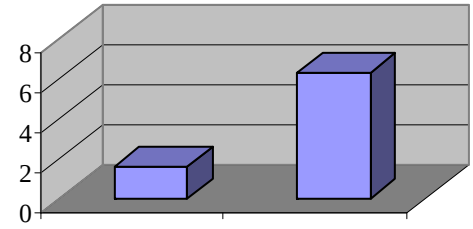
An independent samples t-test indicates that the difference in 2005 and 2006 Social Studies PACT scores is significantly different between two of the styles of behavior management for students in the child development sites (t=-3.092, df=192, p=0.002). The average difference in Social Studies PACT scores for students in sites that used both positive and negative behavior management was an increase of 0.15 points (n=136, SD=0.70). The average difference in Social Studies PACT scores for students in sites that used only positive behavior management was an increase of 0.19 points (n=58, SD=0.74). Therefore, students in child development sites that utilized both positive and negative behavior management styles had a decrease in Social Studies PACT scores, while students in child development sites that utilized only positive behavior management styles had an increase in social studies PACT scores. (See Figure 116.)

Figure 116: Diff. in Social Studies PACT Scores by Behavior Mgmt for Students in Child Devel. Sites



There are no significant relationships between the difference in students' Math PACT scores and behavior management style for child development sites.

Figure 117: Diff. in Yearly Absences by Behavior Mgmt. for Students in Child Devel. Sites

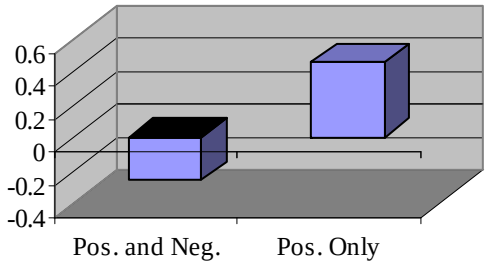


An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 yearly absences is significantly different between two of the styles of behavior management for students in the child development sites (t=-5.188, df=346, p=0.000). The average difference in yearly absences for students in sites that used both positive and negative behavior management was an increase of 1.59 absences (n=212, SD=8.42). The average difference in yearly absences for students in sites that used only positive behavior management was an increase of 6.27 absences (n=136, SD=7.89). Therefore, students in child development sites that utilized only positive behavior management techniques had a greater increase in yearly absences than students in child development sites that utilize both positive and negative behavior. (See Figure 117.)

An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 yearly referrals is significantly different between two of the styles of behavior management for students in the child development sites (t=-2.447, df=174.7, p=0.015). The average difference in yearly referrals for students in sites that used both positive and negative behavior management was a decrease of 0.26 referrals (n=136, SD=3.17). The average difference in yearly referrals for

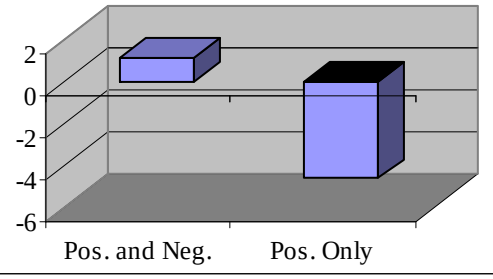
students in sites that used only positive behavior management was an increase of 0.46 referrals (n=136, SD=1.23). Therefore, students in child development sites that utilize only positive behavior management styles had an increase in yearly referrals, while students in child development sites that utilize both positive and negative behavior experienced a decrease in yearly referrals. (See Figure 118.)

Figure 118: Diff. in Yearly Referrals by Behavior Mgmt for Students in Child Development Sites



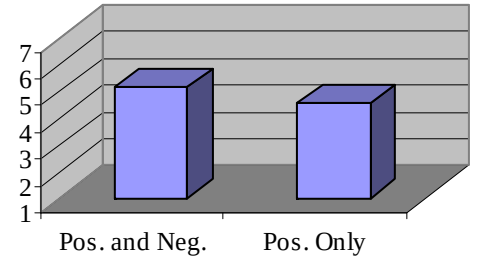
An independent samples t-test indicates that the difference between the first and last grading period ELA grades is significantly different between two of the styles of behavior management for students in child development sites (t=3.014, df=229, p=0.003). The average difference in ELA grades for students in sites that used both positive and negative behavior management was an increase of 1.18 points (n=200, SD=9.82). The average difference in ELA grades for students in sites that used only positive behavior management was a decrease of 4.65 points (n=31, SD=11.21). Therefore, students in child development sites that utilized only positive behavior management techniques had a decrease in ELA grades, while students in child development sites that utilized both positive and negative behavior management experienced an increase in ELA grades. (See Figure 119.)

Figure 119: Diff in ELA Grades by Behavior Mgmt Style for Students in Child Development Sites



There are no significant relationships between the difference in students' science or math grades and behavior management style for child development sites.

Figure 120: Improvement in Classroom Perf. by Beh. Mgmt for Students in Child Devel. Sites

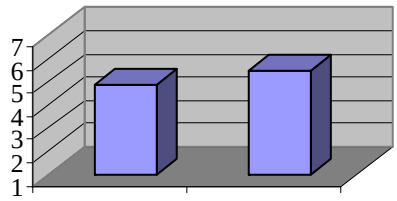


An independent samples t-test indicates that there is a significant difference in the improvement of classroom performance between two of the styles of behavior management for students in the child development sites (t=3.660, df=147.4, p=0.000). The average improvement in classroom performance for students in sites that used both positive and negative behavior management was 5.15 points (n=346, SD=1.15), which was just more than a slight improvement. The average improvement in classroom performance for students in sites that used only positive behavior management was 4.57 points (n=108, SD=1.52), which was between no change and a slight improvement. Therefore, students in child development sites that utilized both positive and negative behavior management styles had greater improvement in classroom performance than students in child development sites that utilized only positive behavior management. (See Figure 120.)

Group Identity for Behavior Management

There are no significant relationships between the difference in the students' PACT scores and whether or not the program attempted to build group identity for students in child development sites. Tests of significant differences in the change between absences and referrals from 2004-2005 to 2005-2006 based upon whether or not the program attempted to build group identity for students in child development sites were invalid due to the small numbers in some groups. Tests of significant differences in the change between grades from the first to last grading period based upon whether or not the program attempted to build group identity for students in child development sites were invalid due to the small numbers in some groups.

Figure 121: Improvement in Classroom Perf. by Group Identity for Students in Child Devel.Sites

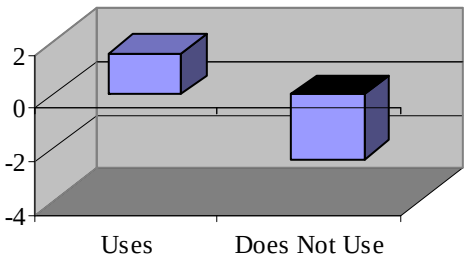


An independent samples t-test indicates that there is a significant difference in the improvement of classroom performance for students in child development sites that attempt to build group identity compared to students in child development sites that did not attempt to build group identity (t=4.149, df=168.6, p=0.000). The average improvement in classroom performance for students in sites that attempted to build group identity was 4.90 (n=363, SD=1.30), which was just less than a slight improvement. The average improvement in classroom performance for students in sites that did not attempt to build group identity was 5.44 (n=91, SD=1.04), which was a slight to moderate improvement. Therefore, students in child development sites that did not attempt to build group identity had greater improvement in classroom performance than students in child development sites that did attempt to build group identity. (See Figure 121.)

Intrinsic Rewards for Behavior Management

There are no significant relationships between the difference in students' PACT scores and whether or not the child development site used intrinsic rewards. There are no significant relationships between the difference in students' absences and referrals and whether or not the child development site used intrinsic rewards.

Figure 122: Differences in Science Grades by Intrinsic Rewards for Students in Child Devel. Sites



An independent samples t-test indicates that the difference between the first and last grading period science grades is significantly different for child development sites that used intrinsic rewards compared to child development sites that did not use intrinsic rewards (t=-2.105, df=95.7, p=0.038). The average difference in science grades for students in sites that used intrinsic rewards was an increase of 1.54 points (n=63, SD=7.69). The average difference in science grades for students in sites that did not use intrinsic rewards was a decrease of 2.42 points (n=59, SD=12.40). Therefore, students in child development sites that used intrinsic rewards had

an increase in science grades, while students in child development sites that did not use intrinsic rewards experienced a decrease in science grades. (See Figure 122.)

There are no significant relationships between the difference in the students' ELA or math grades and the use of intrinsic rewards for students in child development sites. There are no significant differences in classroom performance based upon whether or not the program used intrinsic rewards for students in child development sites.

Physical Activities

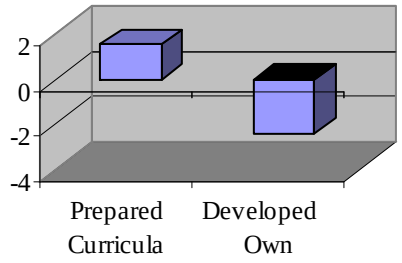
All tests of significance conducted based upon whether or not the child development sites allowed for physical activities were invalid due to the small numbers in each group.

Type of Curricula

Tests of significant differences in the change between 2005 and 2006 PACT scores based upon the type of curricula used by child development sites were invalid due to the small numbers in some groups. There are no significant relationships between the difference in students' absences and the type of curricula used by child development sites.

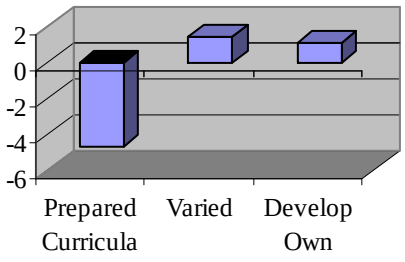
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 referrals is significantly different for child development sites that developed their own lesson plans compared to child development sites that used prepared curricula (t=-2.887, df=154.7, p=0.004). The average difference in yearly referrals for students in sites that develop their own lesson plans was a decrease of 0.41 referrals (n=121, SD=3.23). The average difference in yearly referrals for students in sites that use prepared curricula was an increase of 0.50 referrals (n=151, SD=1.38). Therefore, students in child development sites that developed their own lesson plans had a decrease in yearly referrals, while students in child development sites that used prepared curricula experienced an increase in yearly referrals. (See Figure 123.)

Figure 123: Difference in Referrals by Type of Curricula for Students in Child Development Sites



A Oneway ANOVA comparison of means indicates that the difference between first and last grading period ELA grades is significantly different based upon the type of curricula used by site staff (F=4.539, df=2, p=0.012). The average difference in grades for students in sites that used prepared curricula was a decrease of 4.65 points (n=31, SD=11.21). This average was significantly lower than the difference in grades of students in which site staff varied between using prepared curricula and developing their own lesson plans (mean=1.44, n=39, SD=7.54,

Figure 124: Difference in ELA Grades by Type of Curricula for Students in Child Deve. Sites



p=0.033). The average difference in grades for students in sites that used prepared curricula is also significantly lower than the difference in grades of students in sites where staff developed their own lesson plans (mean=1.12, n=161, SD=10.32, p=0.010). Therefore, the grades of students in child development sites where staff used prepared curricula decreased, while the grades of students increased in child development sites where staff used varied curricula and in child development sites where staff developed their own lesson plans. (See Figure 124.)

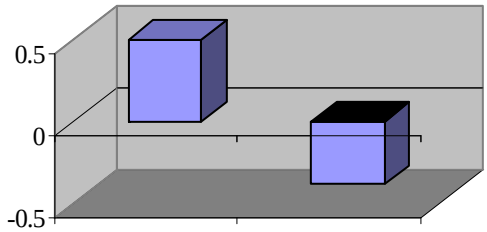
There are no significant relationships between the difference in students' science and math grades and the type of curricula used for child development sites. There are no significant differences in classroom performance for students in child development sites based upon the type of curricula used.

Staff Certification

There are no significant relationships between the difference in students' PACT scores for child development sites and the level of staff certification.

A Oneway ANOVA comparison of means indicates that difference between 2004-2005 and 2005-2006 discipline referrals is significantly different based upon the level of staff certification for child development sites (F=4.855, df=2, p=0.008). The average difference in yearly referrals for students in sites that had few to no certified teachers was an increase of 0.50 referrals (n=151, SD=1.38). This average is significantly higher than the difference in yearly referrals of students in sites where almost all of the teachers were certified (mean=-0.38, n=86, SD=2.91, p=0.018). Therefore, discipline referrals for students in child development sites that had few to no certified teachers increased, while the discipline referrals for students in child development sites that had almost all certified teachers decreased. (See Figure 125.)

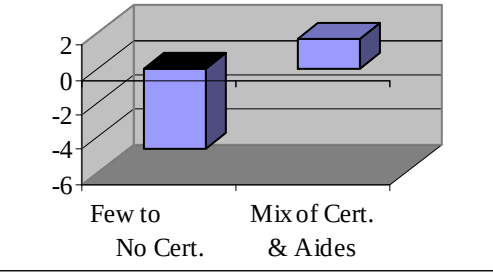
Figure 125: Difference in Referrals by Level of Staff Certif. for Students in Child Development Sites



There are no significant relationships between the difference in students' absences and the level of staff certification for students in child development sites.

A Oneway ANOVA comparison of means indicates that the difference between first and last grading period ELA grades is significantly different based upon the level of staff certification for child development sites (F=5.205, df=2, p=0.006). The average difference in ELA grades for students in sites that few to no certified teachers was a decrease of 4.65 points (n=31, SD=11.21). This average is significantly lower than the difference in ELA grades for students in sites where there was a mix of certified teachers and aides (mean=1.73, n=137, SD=10.92, p=0.004). Therefore, the ELA grades for students in child development

Figure 126: Diff in ELA Grades by Level of Staff Certification for Students in Child Devel. Sites



sites that had few to no certified teachers decreased, while the ELA grades for students in child development sites that had a mix of certified teachers and aides increased. (See Figure 126.)

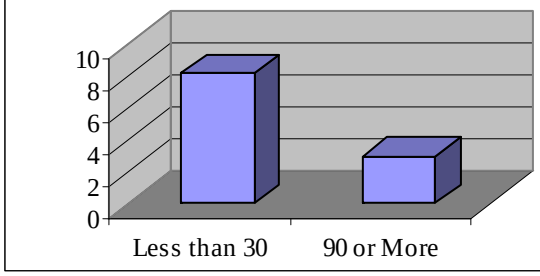
There are no significant relationships between the differences in students' math or science grades or the level of staff certification for child development sites. There are no significant differences in classroom performance for students in child development sites based upon the level of staff certification.

Days Present in the Program

There are no significant relationships between the differences in students' PACT scores and the number of days the student was present in the program for child development sites.

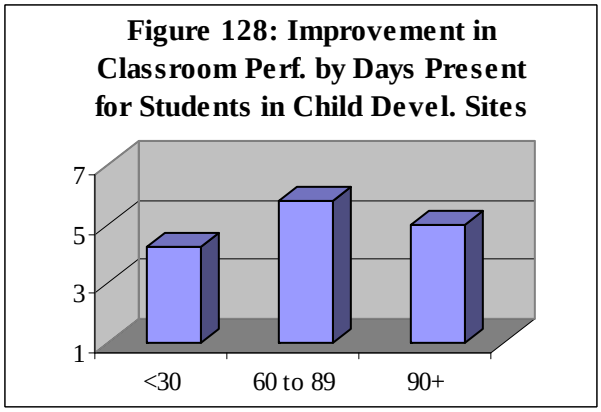
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different based upon the number of days the students was present in the after school program (F=3.393, df=3, p=0.018). The average difference in yearly absences for students that attended less than 30 days was an increase of 8.17 absences (n=29, SD=15.52). This average is significantly higher than the difference in yearly absences of students who attended more than 90 days (mean=2.97, n=258, SD=5.80, p=0.009). Therefore, the absences for students who attended a child development site for less than 30 days increased, while the yearly absences for students who attended a child development site for 90 or more days decreased. (See Figure 127.)

Figure 127: Diff in Absences by Number of Days Present for Students in Child Devel. Sites



There are no significant relationships between the difference in students' yearly referrals or grades in school by the number of days the student was present for child development sites.

Figure 128: Improvement in Classroom Perf. by Days Present for Students in Child Devel. Sites



A Oneway ANOVA comparison of means indicates that there is a significant difference in the improvement of classroom performance based upon the number of days the students were present in the after school program (F=8.613, df=3, p=0.000). The average improvement in classroom performance for students that attended less than 30 days was 4.24 (n=23, SD=1.72), which was just above no change. This average is significantly lower than the average improvement of students who attended 60 to 89 days (mean=5.81, n=40, SD=1.10, p=0.000), which was almost a moderate improvement, and lower than the average improvement of students who attended 90 or more days (mean=4.97, n=372, SD=1.22, p=0.032), which was a slight improvement. The average improvement of students who attended 60 to 89 days is also significantly higher than those who attended 90 or more days (p=0.000). Therefore, the average improvement in classroom performance was higher for

students who attended 60 to 89 days than it was for both students who attended less than 30 days and 90 or more days in child development sites. The average improvement for students who attended 90 days or more was also higher than the improvement of those who attended less than 30 days in child development sites. (See Figure 128.)

Influence of Extraneous Variables

Community Demographics

There are no significant relationships between the difference in students' PACT scores and the type of sponsoring organization for child development sites.

An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different for child development sites that were sponsored by a Boys & Girls Club as compared to child development sites that were sponsored by a school district (t=3.810, df=166, p=0.000). The average difference in yearly referrals for students in sites that are sponsored by a Boys & Girls Club was an increase of 0.50 referrals (n=151, SD=1.38). The average difference in yearly referrals for students in sites that were sponsored by a school district was a decrease of 0.53 referrals (n=119, SD=2.69). Therefore, students in child development sites sponsored by a Boys & Girls Club had an increase in yearly referrals, while students in child development sites that are sponsored by a school district had a decrease in yearly referrals. (See Figure 129.)

Figure 129: Difference in Referrals by Sponsoring Org. for Students in Child Devel. Sites

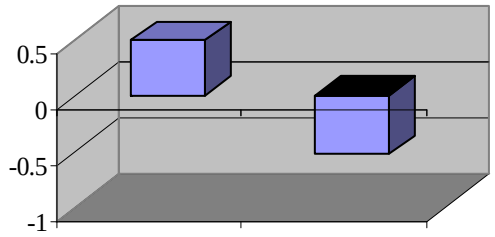
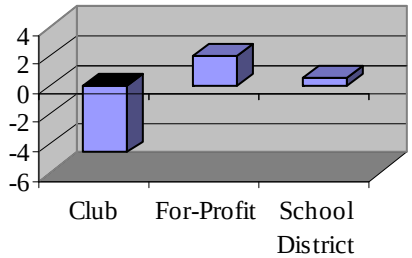


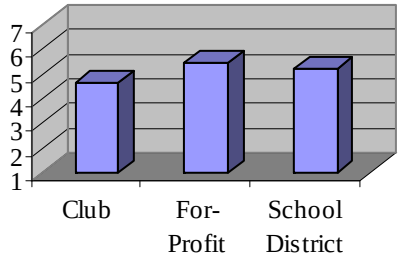
Figure 130: Difference in ELA Grades by Sponsoring Organization for Students in Child Devel. Sites



A Oneway ANOVA comparison of means indicates the difference between first and last grading period ELA grades is significantly different based upon the sponsoring organization of the after school program (F=5.068, df=2, p=0.007). The average difference in ELA grades for students that attended a site sponsored by a Boys & Girls Club was a decrease of 4.65 points (n=31, SD=11.21). This average is significantly lower than the difference in ELA grades for students who attended a site sponsored by a for-profit entity (mean=2.02, n=85, SD=12.40, p=0.005) and significantly lower than the average difference in ELA grades for those who attended a site sponsored by a school district (mean=0.56, n=115, SD=7.36, p=0.029). Therefore, the average ELA grades for students who attended a child development site sponsored by a Boys & Girls Club decreased, while the average ELA grades for students who attended a child development site sponsored by both for-profit entities and school districts increased. (See Figure 130.)

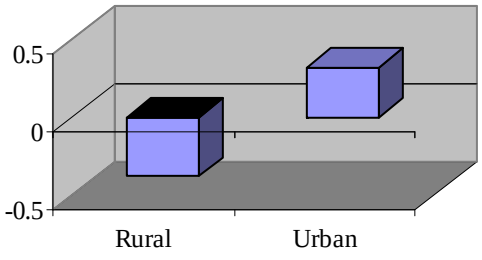
A Oneway ANOVA comparison of means indicates that there is a significant difference in the improvement of classroom performance based upon the sponsoring organization of the after school program (F=15.606, df=2, p=0.000). The average improvement in classroom performance for students that attended a site sponsored by a Boys & Girls Club was 4.66 (n=203, SD=1.34), which was between no change and slight improvement. This average is significantly lower than the improvement for students who attended a site sponsored by a for-profit entity (mean=5.44, n=91, SD=1.04, p=0.008), which was a slight to moderate improvement, and significantly lower than the average improvement for those who attended a site sponsored by a school district (mean=5.21, n=160, SD=1.19, p=0.001), which was just more than a slight improvement. Therefore, the average improvement in classroom performance for students who attended a child development site sponsored by a Boys & Girls Club was lower than the average improvement of students who attended child development sites sponsored by for-profit entities and child development sites sponsored by school districts. (See Figure 131.)

Figure 131: Imprvmt in Classroom Perf. by Sponsoring Org. for Students in Child Devel. Sites



Tests of significant differences in PACT scores for students in child development sites according to the site location (rural or urban) were invalid due to the small numbers in some groups.

Figure 132: Difference in Referrals by Site Location for Students in Child Development Sites



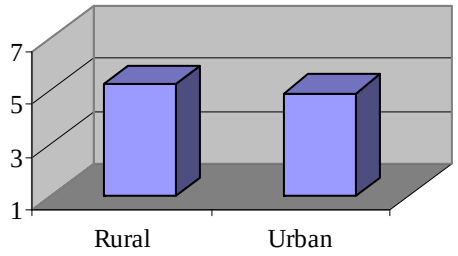
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different for child development sites that were located in a rural setting compared to child development sites that were located in an urban setting (t=-2.250, df=270, p=0.025). The average difference in yearly referrals for students in sites that were located in a rural setting was a decrease of 0.38 referrals (n=86, SD=2.91). The average difference in yearly referrals for students in sites that were located in an urban setting was an increase of 0.32 referrals (n=186, SD=2.14). Therefore, students in child development sites that were located in a rural setting had an increase in referrals, while students in child development sites that are located in an urban setting had a decrease in referrals. (See Figure 132.)

There are no significant relationships between the difference in students' absences or grades in school by site location for child development sites. Tests of significant differences in PACT scores based upon the grade level for students in child development sites were invalid due to the small numbers in some groups.

An independent samples t-test indicates that there is a significant difference in classroom performance for child development sites that were located in a rural setting compared to child development sites that were located in an urban setting (t=2.526, df=452, p=0.012). The average improvement in classroom performance for students in sites that were located in a rural setting was 5.25 (n=126, SD=1.15), which

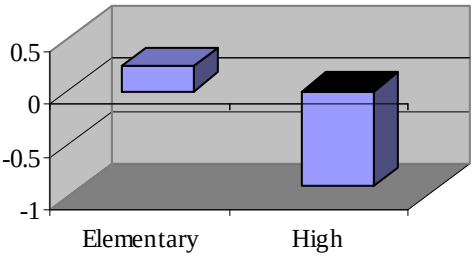
was just more than a slight improvement. The average improvement in classroom performance for students in sites that were located in an urban setting was 4.92 (n=328, SD=1.31), which was just less than a slight improvement. Therefore, students in child development sites that were located in a rural setting had greater average improvement in classroom performance than students in child development sites located in an urban setting. (See Figure 133.)

Figure 133: Improvement in Classroom Perf. by Site Location for Students in Child Devel. Sites



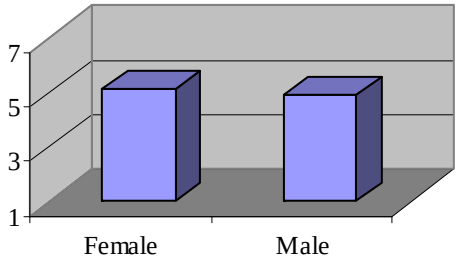
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different for elementary school students compared to high school students in the child development sites (t=2.574, df=270, p=0.011). The average difference in yearly referrals for students in elementary school was an increase of 0.24 referrals (n=239, SD=2.45). The average difference in yearly referrals for students in high school was a decrease of 0.91 referrals (n=186, SD=2.14). Therefore, elementary school students in child development sites experienced an increase in yearly referrals, while high school students in child development sites had a decrease in yearly referrals. (See Figure 134.)

Figure 134: Difference in Yearly Referrals by Grade Level for Students in Child Devel. Sites



There are no significant relationships between the difference in students' absences, grades in school, or classroom performance by grade level for child development sites. There are no significant relationships between the difference in students' PACT scores, absences and referrals, or grades in school by gender for child development sites.

Figure 135: Improvement in Classroom Perf. by Grade Level for Students in Child Devel. Sites

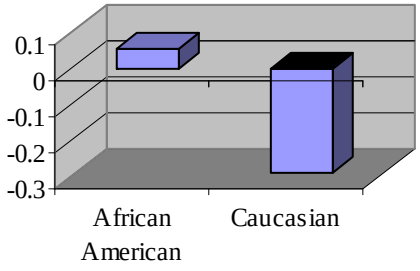


An independent samples t-test indicates that there is a significant difference in the improvement of classroom performance by gender for child development sites (t=2.53, df=452, p=0.012). The average improvement in classroom performance for females was 5.14 (n=211, SD=1.17), which was just above a slight improvement. The average improvement in classroom performance for males was 4.90 (n=243, SD=1.35), which was just below a slight improvement. Therefore, female students in child development sites had a greater average improvement in classroom performance than male students in child development sites. (See Figure 135.)

Due to the small number of Hispanic students and students of other ethnicities, these two groups were not included in tests of significant difference for child development sites. Instead, independent samples t-tests were conducted to identify differences in the dependent variables between African American students and Caucasian students.

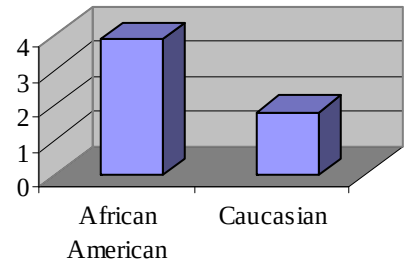
An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores is significantly different for African American students compared to Caucasian students in the child development sites (t=3.211, df=187, p=0.002). The average difference in Social Studies PACT scores for African American students was an increase of 0.06 points (n=124, SD=0.72). The average difference in Social Studies PACT scores for Caucasian students was a decrease of 0.29 points (n=65, SD=0.68). Therefore, African American students in child development sites experienced an increase Social Studies PACT scores, while Caucasian students in child development sites had a decrease in Social Studies PACT scores. (See Figure 136.)

Figure 136: Difference in Social Studies PACT Scores by Ethnicity for Students in Child Devel. Sites



An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different for African American students compared to Caucasian students in the child development sites (t=2.182, df=330, p=0.030). The average difference in yearly absences for African American students was an increase of 3.90 absences (n=224, SD=9.21). The average difference in yearly absences for Caucasian students was an increase of 1.80 absences (n=108, SD=5.01). Therefore, African American students in child development sites experienced a greater increase in yearly absences than Caucasian students in child development sites. (See Figure 137.)

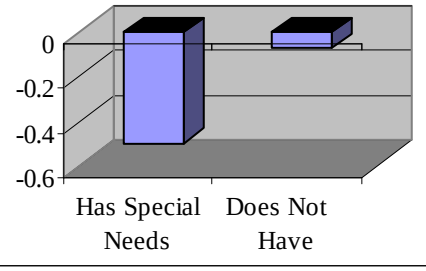
Figure 137: Difference in Absences by Ethnicity for Students in Child Development Sites



There are no significant relationships between the difference in students' discipline referrals, grades in school, or classroom performance by ethnicity for child development sites.

Tests to discover if there were differences in PACT scores according to whether or not the student received free or reduced lunch for those in child development sites were invalid due to the small numbers in some groups. There are no significant relationships between the difference in students' absences and referrals, grades in school, or classroom performance by whether or not the students received free or reduced lunch for child development sites.

Figure 138: Diff in ELA PACT by Special Needs Status for Students in Child Development Sites



An independent samples t-test indicates that the difference between 2005 and 2006 ELA PACT scores is significantly different based on special needs status of students in child development sites (t=2.93, df=191, p=0.004). The average difference in ELA PACT scores for students who are reported as having a special need was a decrease of 0.5 points (n=20, SD=0.69). The average

difference in ELA PACT scores for students who do not have a special need was a decrease of 0.07 points (n=173, SD=0.62). Therefore, special needs students in child development sites had a significantly greater decrease in their ELA PACT scores compared to students in child development sites who do not have a special need. (See Figure 138.)

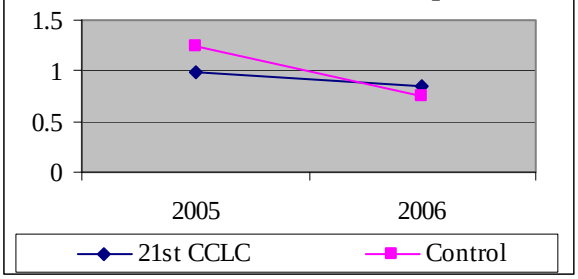
There are no significant relationships between the difference in students' Math, Science or Social Studies PACT scores, absences and referrals, grades in school, or classroom performance by whether or not the student was reported as having a special need for students in child development sites.

Comparison with Control Group

An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores is significantly different for students in the 21st CCLC child development sites compared to students in the control group (t=-2.745, df=406.0, p=0.006). The average difference in scores from 2005 to 2006 for the students in the 21st CCLC child development sites was a decrease of 0.05 points (n=193, SD=0.73). The average difference in scores from 2005 to 2006 for the control group was a decrease of 0.23 points (n=316, SD=0.73). Therefore, students in the 21st CCLC child development sites experienced less of a decrease in Social Studies PACT scores between 2005 and 2006 than students in the control group. (See Figure 139.)

There are no significant relationships between the differences in ELA, Math and Science PACT scores for students in the 21st CCLC program compared to students in the control group.

Figure 139: Social Studies PACT for 21stCCLC Child Development Sites and Control Group



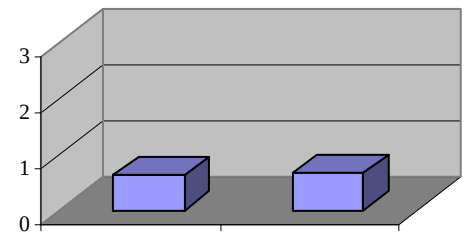
Cluster Two: Mixed Approach Sites

The second cluster of the Site Policy primary factor is the Mixed Approach cluster. This cluster contained 34 sites. Of these 34 sites, 28 sites provided data on 2,110 students. Of these 2,110 students, data for both 2005 and 2006 PACT scores were reported for 786 students in English/Language Arts (ELA), 785 students in mathematics, 782 students in science, and 768 students in social studies. Data for both 2004-2005 and 2005-2006 absences and referrals were reported for 706 students and 674 students, respectively. Data for both first and last quarter grades in school were reported for 1,137 students in ELA, 1,132 students in mathematics, and 1,014 students in science. Teacher surveys on classroom performance were completed for 1,397 students. It must be noted that the data available for analysis does not represent all of the mixed approach sites.

Changes in Dependent Variables

A paired samples t-test indicates that there is a significant difference between the ELA PACT scores from 2005 to 2006 for students in mixed approach sites (t=-2.156, df=785, p=0.031). The average ELA PACT score for 2005 was 0.62 (n=786, SD=0.67), which was between Below Basic and Basic. The average ELA PACT score for 2006 was 0.66 (n=786, SD=0.68). Therefore, the average ELA PACT score increased significantly from 2005 to 2006 for students in mixed approach sites. (See Figure 140.)

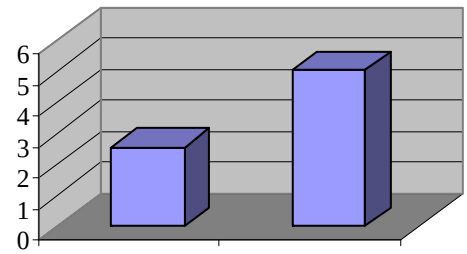
Figure 140: ELA PACT Scores for Students in Mixed Approach Sites



There are no significant differences in Math, Science or Social Studies PACT scores between 2005 and 2006 for students in mixed approach sites.

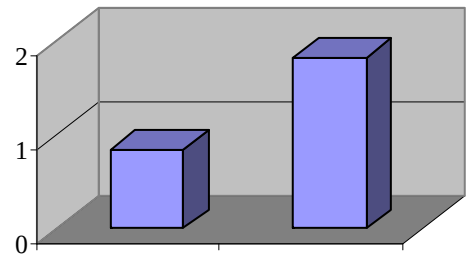
A paired samples t-test indicates that there is a significant difference between the number of absences in the 2004-2005 school year and the 2005-2006 school year (t=-10.853, df=705, p=0.000). Students had an average of 2.55 absences (n=706, SD=5.59) during the 2004-2005 school year, whereas the same students had an average of 5.04 absences (n=706, SD=5.59) during the 2005-2006 school year. Therefore, the average number of absences increased from the 2004-2005 school year to the 2005-2006 school year for students in mixed approach sites. (See Figure 141.)

Figure 141: Absences for Students in Mixed Approach Sites



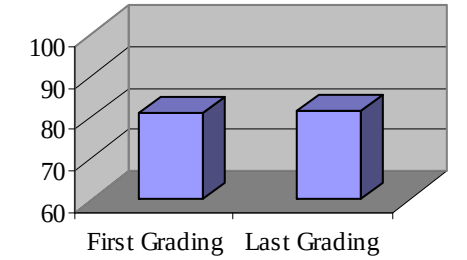
A paired samples t-test indicates that there is a significant difference between the number of discipline referrals in the 2004-2005 school year and the 2005-2006 school year (t=-8.578, df=673, p=0.000). Students had an average 0.85 referrals (n=674, SD=2.15) during the 2004-2005 school year, whereas the same students had an average of 1.84 referrals (n=674, SD=3.04) during the 2005-2006 school year. Therefore, the average number of referrals increased from the 2004-2005 school year to the 2005-2006 school year for students in mixed approach sites. (See Figure 142.)

Figure 142: Referrals for Students in Mixed Approach Sites



A paired samples t-test indicates that there is a significant difference between the science grades for the first and last grading period of the 2005-

Figure 143: Science Grades for Students in Mixed Approach Sites



2006 school year for students in the mixed approach sites (t=-2.739, df=1013, p=0.006). Students' average science grade for the first grading period was 80.82 (n=1014, SD=10.90). Students' average science grade for the last grading period was 81.64 (n=1014, SD=10.85). Therefore, students' average science grade increased from the first to the last grading period for mixed approach sites. (See Figure 143.)

There are no significant differences between the first and last grading period ELA and math grades for students in the mixed approach sites.

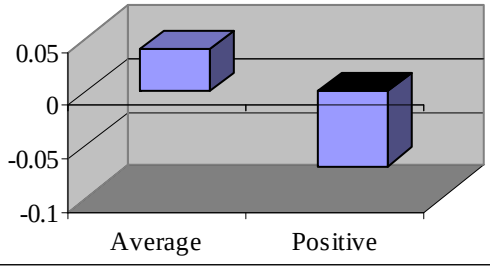
A one-sample t-test indicates that the students' average improvement in classroom performance is significantly different from the test value, which is that the student did not change (t=41.73, df=1396, p=0.000). The mean average improvement for students in mixed approach sites was 5.20 (n=1397, SD=1.08), which was somewhat more than a slight improvement, compared to the test value of 4. Therefore, students in the mixed approach sites have significantly improved their classroom performance.

A one-sample t-test indicates that the number of items the student needed to improve on in classroom performance is significantly different from the test values, which were that the student needed to improve on all items (t=22.453, df=2035, p=0.000) and that the student did not need to improve on any items (t=-182.910, df=2035, p=0.000). The mean number of items that students in mixed approach sites needed to improve on was 1.09 (n=2036, SD=2.20), compared to the test value of 0 (that they needed to improve on all items) and compared to the test value of 10 (that they did not need to improve on any items). Therefore, students in the mixed approach sites need to improve on some aspects of classroom performance, but not on all aspects.

Influence of Sub-Factors

An independent samples t-test indicates that the difference between the 2005 and 2006 Science PACT scores is significantly different between two of the clusters within the Internal Environment sub-factor for students in the mixed approach sites (t=2.193, df=398.5, p=0.029). The average difference in Science PACT scores for students in sites with average internal environments was an increase of 0.04 points (n=389, SD=0.56). The average difference in Science PACT scores for students in sites with positive internal environments was a decrease of 0.07 points (n=215, SD=0.63). Therefore, students in mixed approach sites with average internal environments had an increase in Science PACT scores, while students in mixed approach sites with positive internal environments had a decrease in Science PACT scores. (See Figure 144.)

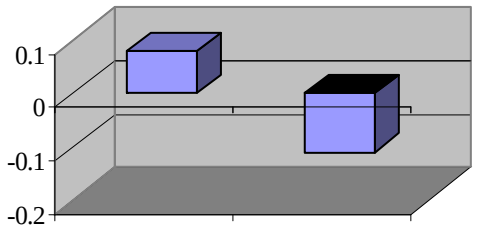
Figure 144: Diff in Science PACT Scores by Internal Environment for Students in Mixed Approach Sites



An independent samples t-test indicates that the difference between Social Studies PACT scores is significantly different between two of the clusters within the Internal Environment sub-factor for students in the mixed approach sites

(t=2.994, df=401.4, p=0.003). The average difference in Social Studies PACT score for students in sites with average internal environments was an increase of 0.08 points (n=377, SD=0.67). The average difference in Social Studies PACT scores for students in sites with positive internal environments was a decrease of 0.12 points (n=215, SD=0.63). Therefore, students in mixed approach sites with average internal environments had an increase in Social Studies PACT scores, while students in mixed approach sites with positive internal environments had a decrease in Social Studies PACT scores. (See Figure 145.)

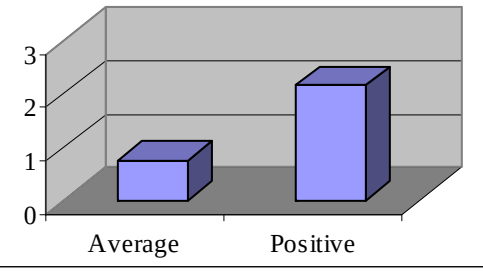
Figure 145: Diff in Social Studies PACT Scores by Internal Envir. for Students in Mixed Approach Sites



There are no significant relationships between the difference in students' ELA and Math PACT scores and Internal Environment for mixed approach sites.

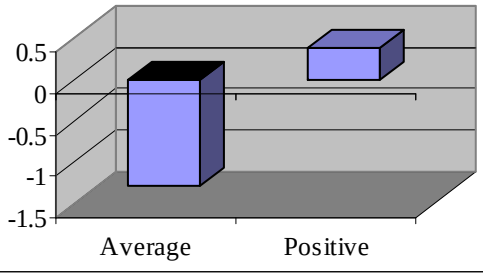
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 referrals is significantly different between two of the clusters within the Internal Environment sub-factor for students in mixed approach sites (t=-3.458, df=160.7, p=0.001). The average difference in yearly referrals for students in sites with average internal environments was an increase of 0.75 referrals (n=327, SD=2.55). The average difference in yearly referrals for students in sites with positive internal environments was an increase of 2.15 referrals (n=126, SD=4.27). Therefore, students in mixed approach sites with positive internal environments had a greater increase in yearly referrals than students in mixed approach sites with average internal environments (See Figure 146.)

Figure 146: Diff in Yearly Referrals by Internal Envir. for Students in Mixed Approach Sites



There are no significant relationships between the difference in students' absences and Internal Environment for mixed approach sites.

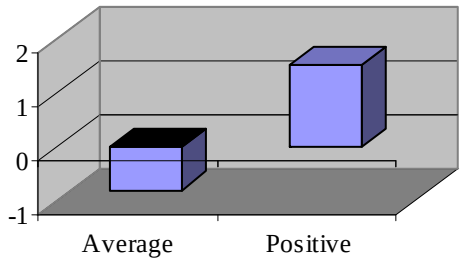
Figure 147: Diff in ELA Grades by Internal Environment for Students in Mixed Approach Sites



An independent samples t-test indicates that the difference between the first and last grading period ELA grades is significantly different between two of the clusters within the Internal Environment sub-factor for students in mixed approach sites (t=-2.218, df=962.1, p=0.027). The average difference in ELA grades for students in sites with average internal environments was a decrease of 1.28 points (n=592, SD=15.31). The average difference in ELA grades for students in sites with positive internal environments was an increase of 0.39 (n=424, SD=8.53). Therefore, students in mixed approach sites with positive internal environments had an increase in ELA grades, while students in mixed approach sites with average internal environments had a decrease in ELA grades. (See Figure 147.)

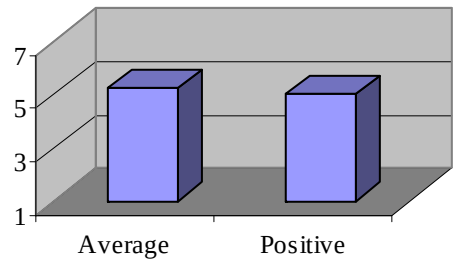
An independent samples t-test indicates that the difference between the first and last grading period science grades is significantly different between two of the clusters within the Internal Environment sub-factor for students in mixed approach sites (t=-2.755, df=863.3, p=0.006). The average difference in science grades for students in sites with average internal environments was a decrease of 0.80 points (n=593, SD=15.50). The average difference in ELA grades for students in sites with positive internal environments was an increase of 1.52 points (n=305, SD=9.68). Therefore, students in mixed approach sites with positive internal environments had an increase in science grades, while students in mixed approach sites with average internal environments had a decrease in science grades. (See Figure 148.)

Figure 148: Diff in Science Grades by Internal Envir. for Students in Mixed Approach Sites



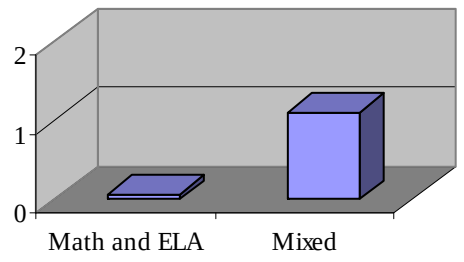
An independent samples t-test indicates that there is a significant difference in the improvement of classroom performance for average internal environments compared to positive internal environments for students in the mixed approach sites (t=3.153, df=1016.1, p=0.002). The average improvement for students in sites with average internal environments is 5.21 (n=589, SD=1.11), which was somewhat higher than a slight improvement. The average improvement for students in sites with positive internal environments is 4.99 (n=467, SD=1.06), which was just less than a slight improvement. Therefore, students in mixed approach sites with average internal environments had higher average improvement than students in mixed approach sites with positive internal environments. (See Figure 149.)

Figure 149: Imprvmt in Classroom Performance by Internal Envir. for Students in Mixed Approach Sites



There are no significant relationships between the difference in the 2005 and 2006 PACT scores and activity subject areas for students in mixed approach sites.

Figure 150: Diff in Absences by Activity Subject Areas for Students in Mixed Approach Sites

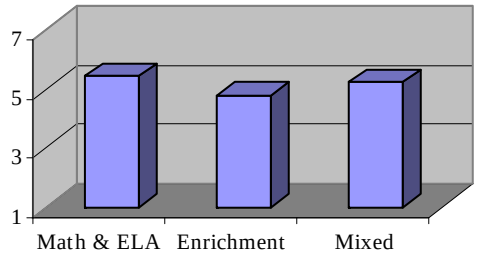


An independent samples t-test indicates that the difference between absences in 2004-2005 and 2005-2006 is significantly different for sites that focused on math and ELA compared to sites with mixed subject areas for students in mixed approach sites (t=3.087, df=80.4, p=0.003). The average difference in yearly absences for students in sites that focus on math and ELA was an increase of 0.06 absences (n=62, SD=2.47). The average difference in yearly absences for students in sites with mixed activity subject areas was an increase of 1.10 absences (n=609, SD=2.99). Therefore, students in mixed approach sites with mixed activity subject areas had a greater increase in yearly absences than students in mixed approach sites with a focus on math and ELA. (See Figure 150.)

There are no significant relationships between the difference in discipline referrals or grades in school by Activity Subject Area for students in mixed approach sites.

A Oneway ANOVA comparison of means indicates that there is a significant difference between average improvement in classroom performance based upon the clusters within the Activity Subject Areas sub-factor (F=19.153, df=2, p=0.000). The average improvement for students in sites that focused on math and ELA was an increase of 5.42 points (n=288, SD=1.18), which was between a slight and moderate improvement. This average is significantly higher than the average improvement of students in sites that focused on enrichment (mean=4.76, n=150, SD=1.08, p=0.000), which was just less than a slight improvement. The average improvement for students in sites that focused on math and ELA activity subject areas is also significantly higher than the average improvement of students in sites with mixed activity subject areas (mean=5.21, n=959, SD=1.03, p=0.010), which was somewhat higher than a slight improvement. Furthermore, the average improvement of students in sites with mixed activity subject areas is significantly higher than that of sites that focused on enrichment (p=0.000). Therefore, the average improvement was greatest for students in mixed approach sites that focused on math and ELA, followed by students in mixed approach sites that had mixed subject areas. Students in mixed approach sites that focused on enrichment had the smallest average improvement. (See Figure 151.)

Figure 151: Imprvmt in Classroom Perf. by Activity Subject Areas for Students in Mixed Approach Sites



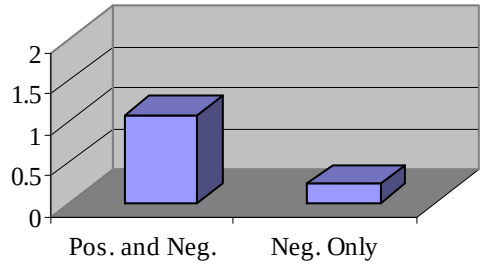
Influence of Independent Variables

Behavior Management Style

There are no significant relationships between the difference in PACT scores based upon behavior management style for students in mixed approach sites.

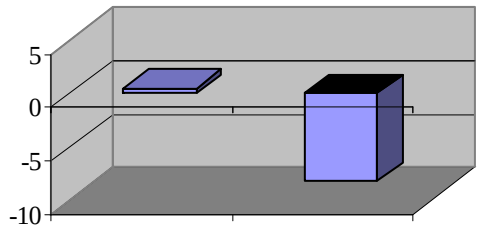
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different for the two behavior management styles used in mixed approach sites (t=3.188, df=103.6, p=0.002). The average difference in yearly referrals for students in sites that used both positive and negative behavior management was an increase of 1.07 referrals (n=611, SD=3.08). The average difference in yearly referrals for students in sites that used only negative behavior management was an increase of 0.24 referrals (n=63, SD=1.81). Therefore, students in mixed approach sites that utilized both positive and negative behavior management styles had a greater increase in referrals than students in mixed approach sites that used only negative behavior management techniques. (See Figure 152.)

Figure 152: Diff in Referrals by Behavior Management Style for Students in Mixed Approach Sites



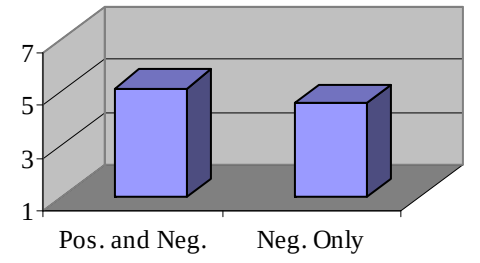
An independent samples t-test indicates that the difference between the first and last grading period science grades is significantly different for the two behavior management styles used in mixed approach sites (t=-2.686, df=75.8, p=0.009). The average difference in science grades for students in sites that used both positive and negative behavior management was an increase of 0.50 points (n=959, SD=10.92). The average difference in science grades for students in sites that used only negative behavior management was a decrease of 8.28 points (n=75, SD=28.18). Therefore, students in mixed approach sites that utilized only negative behavior management styles had a decrease in science grades, while students in mixed approach sites that utilized both positive and negative behavior management experienced an increase in science grades. (See Figure 153.)

Figure 153: Diff in Science Grades by Behavior Management Style for Students in Mixed Approach Sites



An independent samples t-test indicates that there is a significant difference in the improvement of classroom performance for the two behavior management styles used in mixed approach sites (t=-6.268, df=1395, p=0.000). The average improvement in classroom performance for students in sites that used both positive and negative behavior management was 5.25 (n=1301, SD=1.06), which was somewhat more than a slight improvement. The average improvement in classroom performance for students in sites that used only negative behavior management was 4.55 (n=96, SD=1.15). Therefore, students in mixed approach sites that utilized both positive and negative behavior management styles had greater improvement in classroom performance than students in mixed approach sites that utilized only negative behavior management. (See Figure 154.)

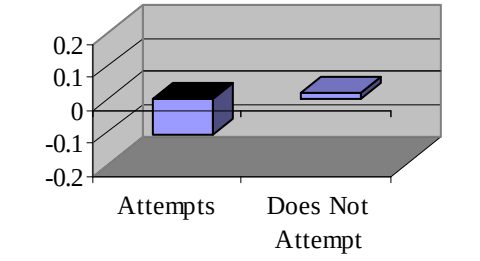
Figure 154: Imprvmnt in Clssrm Perf. by Behavior Mgmt for Students in Mixed Approach Sites



Group Identity for Behavior Management

An independent samples t-test indicates that difference in 2005 and 2006 Science PACT scores is significantly different by whether or not the site attempted to build group identity for students in mixed approach sites (t=2.504, df=780, p=0.012). The average difference in Science PACT scores for students in sites that attempted to build group identity was a decrease of 0.11 points (n=169, SD=0.50). The average difference in Science PACT scores for students in sites that did not attempt to build group identity was an increase of 0.02 points (n=613, SD=0.62). Therefore, students in mixed approach sites that attempted to build group identity had a decrease in Science PACT scores, while students in mixed approach sites that did not attempt to build group identity had an increase in Science PACT scores. (See Figure 155.)

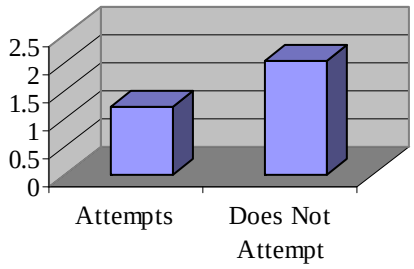
Figure 155: Difference in Science PACT Scores by Group Identity for Students in Mixed Approach Sites



There are no significant relationships in the differences between ELA, Math, or Social Studies PACT scores and whether or not the site attempted to build group identity for students in mixed approach sites.

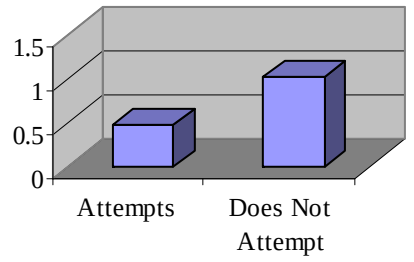
An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different for sites that attempted to build group identity compared to sites that did not attempt to build group identity for students in mixed approach sites (t=1.972, df=464.4, p=0.049). The average difference in yearly absences for students in sites that attempted to build group identity was an increase of 1.21 absences (n=154, SD=3.67). The average difference in yearly absences for students in sites that did not attempt to build group identity was an increase of 2.04 absences (n=485, SD=6.40). Therefore, students in mixed approach sites that did not attempt to build group identity had a greater increase in yearly absences than students in mixed approach sites that attempted to build group identity. (See Figure 156.)

Figure 156: Difference in Absences by Group Identity for Students in Mixed Approach Sites



An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different for sites that attempted to build group identity compared to sites that did not attempt to build group identity for students in mixed approach sites (t=2.216, df=379.2, p=0.027). The average difference in yearly referrals for students in sites that attempted to build group identity was an increase of 0.48 referrals (n=157, SD=2.34). The average difference in yearly referrals for students in sites that did not attempt to build group identity was an increase of 1.02 referrals (n=425, SD=3.19). Therefore, students in mixed approach sites that did not attempt to build group identity had a greater increase in yearly referrals than students in mixed approach sites that attempted to build group identity. (See Figure 157.)

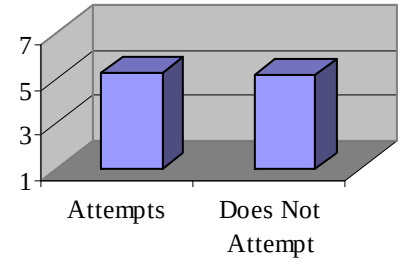
Figure 157: Difference in Referrals by Group Identity for Students in Mixed Approach Sites



There are no significant relationships between the difference in grades based upon whether or not the site attempted to build group identity for students in mixed approach sites.

An independent samples t-test indicates that there is a significant difference in the improvement of classroom performance for students in mixed approach sites that attempted to build group identity compared to students in mixed approach sites that did not attempt to build group identity (t=-2.145, df=1272, p=0.032). The average improvement in classroom performance for students in sites that attempted to build group

Figure 158: Imprvmnt of Clssrm Perf. by Group Identity for Students in Mixed Approach Sites

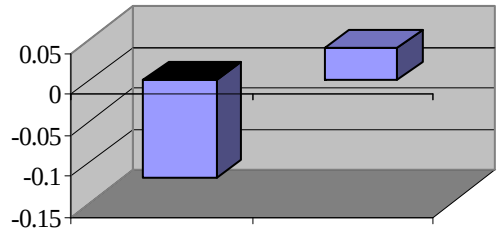


identity was 5.27 (n=369, SD=1.00), which was more than a slight improvement. The average improvement in classroom performance for students in sites that did not attempt to build group identity was 5.12 (n=905, SD=1.11), which was only somewhat more than a slight improvement. Therefore, students in mixed approach sites that attempted to build group identity had greater improvement in classroom performance than students in mixed approach sites that did not attempt to build group identity. (See Figure 158.)

Intrinsic Rewards for Behavior Management

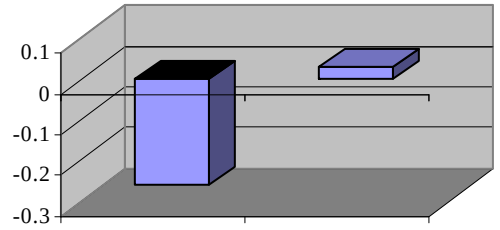
An independent samples t-test indicates that the difference between the 2005 and 2006 Science PACT scores is significantly different for sites that used intrinsic rewards compared to sites that did not use intrinsic rewards for students in the mixed approach sites (t=2.614, df=683, p=0.009). The average difference in Science PACT scores for students in sites that used intrinsic rewards was a decrease of 0.12 points (n=115, SD=0.56). The average difference in Science PACT scores for students in sites that did not use intrinsic rewards was an increase of 0.04 points (n=570, SD=0.60). Therefore, students in mixed approach sites that used intrinsic rewards had a decrease in Science PACT scores, while students in mixed approach sites that did not use intrinsic rewards experienced an increase in Science PACT scores. (See Figure 159.)

Figure 159: Diff in Science PACT Scores by Intrinsic Rewards for Students in Mixed Approach Sites



An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores is significantly different for sites that used intrinsic rewards compared to sites that did not use intrinsic rewards for students in the mixed approach sites (t=3.620, df=148.3, p=0.000). The average difference in Social Studies PACT scores for students in sites that used intrinsic rewards was a decrease of 0.26 points (n=115, SD=0.82). The average difference in Social Studies PACT scores for students in sites that did not use intrinsic rewards was an increase of 0.03 points (n=556, SD=0.68). Therefore, students in mixed approach sites that used intrinsic rewards had a decrease in Social Studies PACT scores, while students in mixed approach sites that did not use intrinsic rewards experienced an increase in Social Studies PACT scores. (See Figure 160.)

Figure 160: Diff in Social Studies PACT Scores by Intr. Rewards for Students in Mixed Approach Sites

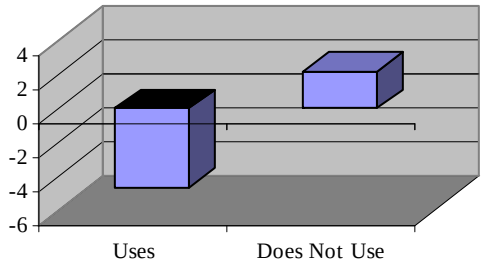


There are no significant relationships in the differences in ELA and Math PACT scores and whether or not the mixed approach site utilized intrinsic rewards.

An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different for sites that used intrinsic rewards compared to sites that did not use intrinsic rewards for students in the mixed approach sites (t=6.468, df=556, p=0.000). The average difference in yearly absences for students in sites that used intrinsic rewards was a

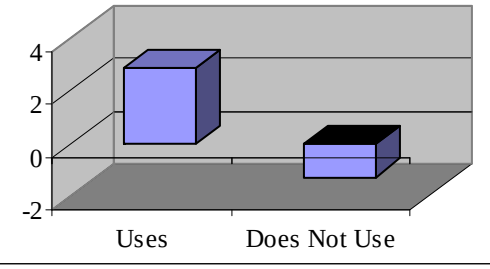
decrease of 4.64 days (n=33, SD=5.07). The average difference in yearly absences for students in sites that did not use intrinsic rewards was an increase of 2.20 days (n=525, SD=5.94). Therefore, students in mixed approach sites that used intrinsic rewards had a decrease in yearly absences, while students in mixed approach sites that did not use intrinsic rewards experienced an increase in yearly absences. (See Figure 161.)

Figure 161: Diff in Absences by Intrinsic Rewards for Students in Mixed Approach Sites



Tests of significant differences in discipline referrals based upon the use of intrinsic rewards for students in mixed approach sites were invalid due to the small numbers in some groups.

Figure 162: Diff in Science Grades by Intrinsic Rewards for Students in Mixed Approach Sites



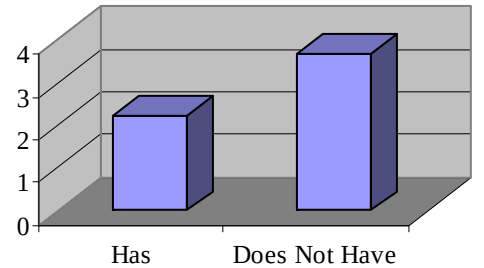
An independent samples t-test indicates that the difference between the first and last grading period science grades is significantly different for sites that used intrinsic rewards compared to sites that did not use intrinsic rewards for students in the mixed approach sites (t=-4.655, df=413.4, p=0.000). The average difference in science grades for students in sites that used intrinsic rewards was an increase of 2.87 points (n=166, SD=8.91). The average difference in science grades for students in sites that did not use intrinsic rewards was a decrease of 1.28 points (n=679, SD=14.71). Therefore, students in mixed approach sites that used intrinsic rewards had an increase in science grades, while students in mixed approach sites that did not use intrinsic rewards experienced a decrease in science grades. (See Figure 162.)

There are no significant relationships between the difference in ELA or math grades or classroom performance by the use of intrinsic rewards for students in mixed approach sites.

Physical Activity

There are no significant relationships between the difference in PACT scores and whether or not the program allowed for physical activity for students in mixed approach sites.

Figure 163: Difference in Absences by Physical Activity for Students in Mixed Approach Sites

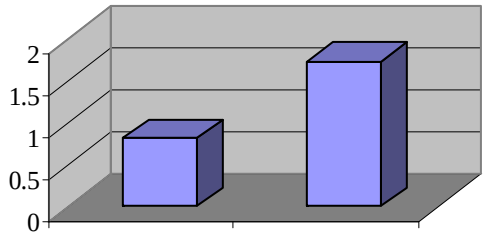


An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different for sites that incorporated physical activity into their schedule compared to sites that did not incorporate physical activity into their schedule for students in the mixed approach sites (t=2.375, df=704, p=0.018). The average difference in yearly absences for students in sites that have physical activity was an increase of 2.24 days (n=584, SD=6.24). The average difference in yearly

absences for students in sites that did not have physical activity was an increase of 3.68 days (n=122, SD=5.23). Therefore, students in mixed approach sites that did not incorporate physical activity into their schedule had a greater increase in absences than students in mixed approach sites that had physical activity. (See Figure 163.)

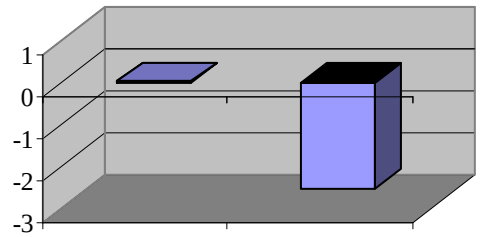
An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different for sites that incorporated physical activity into their schedule compared to sites that did not incorporate physical activity into their schedule for students in the mixed approach sites (t=2.733, df=158.8, p=0.007). The average difference in yearly referrals for students in sites that had physical activity was an increase of 0.82 referrals (n=552, SD=2.85). The average difference in yearly referrals for students in sites that did not have physical activity was an increase of 1.75 referrals (n=122, SD=3.48). Therefore, students in mixed approach sites that did not incorporate physical activity into their schedule had a greater increase in referrals than students in mixed approach sites that had physical activity. (See Figure 164.)

Figure 164: Difference in Referrals by Physical Activity for Students in Mixed Approach Sites



An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different for sites that incorporated physical activity compared to sites that did not incorporate physical activity for students in the mixed approach sites (t=-3.628, df=371.5, p=0.000). The average difference in math grades for students in sites that had physical activities was an increase of 0.03 points (n=977, SD=12.81). The average difference in math grades for students in sites that did not have physical activities was a decrease of 2.53 points (n=171, SD=7.49). Therefore, students in mixed approach sites that incorporated physical activity into their schedule increased in math grades, while students in mixed approach sites that did not have physical activity in their schedule decreased in math grades. (See Figure 165.)

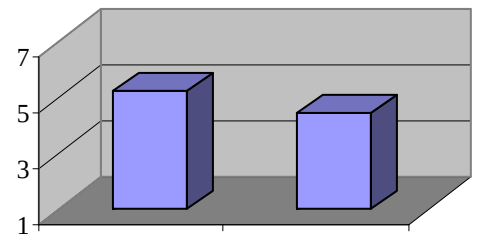
Figure 165: Difference in Math Grades by Physical Activity for Students in Mixed Approach Sites



There are no significant relationships between the difference in ELA and science grades and physical activity for students in mixed approach sites.

An independent samples t-test indicates that there is a significant difference in the improvement of classroom performance for mixed approach sites that incorporated physical activity compared to mixed approach sites that did not incorporate physical activity (t=-4.983, df=215.8, p=0.000). The average improvement in classroom

Figure 166: Improv. in Classrm Perf.by Physical Activity for Students in Mixed Approach Sites

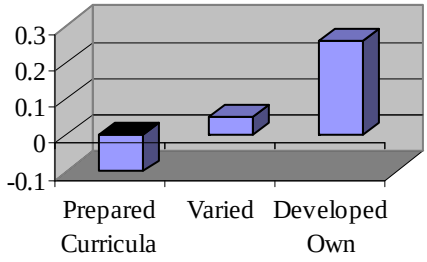


performance for students in sites that had physical activity was 5.25 (n=1242, SD=1.09), which was more than a slight improvement. The average improvement in classroom performance for students in sites that did not have physical activity was 4.86 (n=155, SD=0.89), which was less than a slight improvement. Therefore, students in mixed approach sites that incorporated physical activity into their schedules had greater improvement in classroom performance than students in mixed approach sites that did not have physical activities. (See Figure 166.)

Type of Curricula

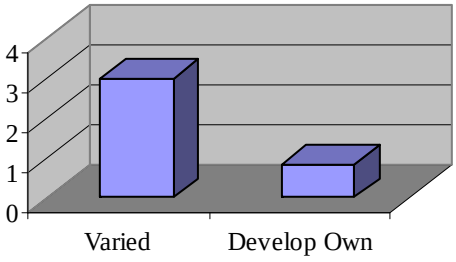
A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Science PACT scores is significantly different based upon the type of curricula used by site staff (F=10.548, df=2, p=0.000). The average difference in Science PACT scores for students in sites that used prepared curricula was a decrease of 0.10 points (n=309, SD=0.55). This average is significantly lower than the difference in Science PACT scores of students in which site staff varied between using prepared curricula and developing their own lesson plans (mean=0.05, n=408, SD=0.62, p=0.001), and is significantly lower than the difference for students in sites that developed their own lesson plans (mean=0.26, n=42, SD=0.50, p=0.000). The average difference in Science PACT scores for students in sites that developed their own lesson plans is also significantly higher than the difference in Science PACT scores of students in sites where staff used a varied curricula (p=0.001). Therefore, the Science PACT scores of students in mixed approach sites where staff developed their own curricula increased the greatest, followed by those students in mixed approach sites where staff used a varied approach. Students in mixed approach sites where staff used prepared curricula were the only group to have a decrease in Science PACT scores. (See Figure 167.)

Figure 167: Diff in Science PACT Scores by Type of Curricula for Students in Mixed Approach Sites



There are no significant relationships between the difference in ELA and Math PACT scores by type of curricula used for students in mixed approach sites.

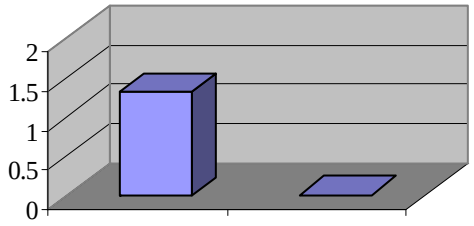
Figure 168: Differences in Absences by Type of Curricula for Students in Mixed Approach Sites



An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different by the type of curricula used by site staff (t=6.915, df=648.1, p=0.000). The average difference in yearly absences for students in sites that varied in their curricula was an increase of 3.00 days (n=540, SD=6.86). The average difference in yearly absences for students in sites where staff developed their own lesson plans was an increase of 0.84 days (n=166, SD=1.34). Therefore, students in mixed approach sites that used varied curricula had a greater increase in yearly absences than students in mixed approach sites that developed their own lesson plans. (See Figure 168.)

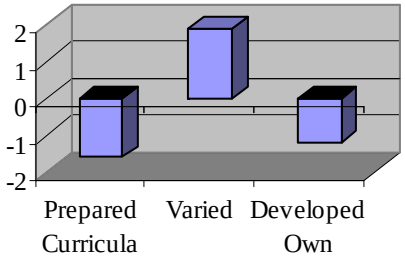
An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different by the type of curricula used by site staff (t=7.662, df=671.4, p=0.000). The average difference in yearly referrals for students in sites that varied in their curricula was an increase of 1.32 referrals (n=504, SD=3.34). The average difference in yearly referrals for students in sites that developed their own lesson plans was an increase of 0.01 referrals (n=170, SD=1.09). Therefore, students in mixed approach sites that used varied curricula had a greater increase in yearly referrals than students in mixed approach sites that developed their own lesson plans. (See Figure 169.)

Figure 169: Difference in Referrals by Type of Curricula for Students in Mixed Approach Sites



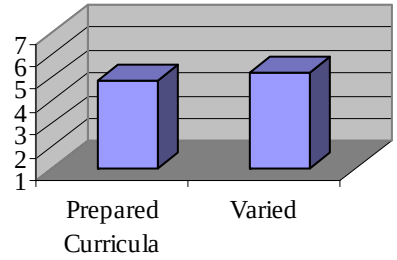
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 science grades is significantly different based upon the type of curricula used by site staff (F=6.179, df=2, p=0.002). The average difference in science grades for students in sites that varied between using prepared curricula and developing their own lesson plans was an increase of 1.90 points (n=334, SD=10.09). This average is significantly higher than the difference in science grades of students in sites where staff developed their own lesson plans (mean=-1.19, n=582, SD=15.10, p=0.002). Therefore, the science grades of students in mixed approach sites where staff used a varied approach increased, while the science grades of students in mixed approach sites in which staff developed their own lesson plans decreased. (See Figure 170.)

Figure 170: Difference in Science Grades by Type of Curricula for Students in Mixed Approach Sites



There are no significant relationships between the difference in ELA and math grades and type of curricula used for students in mixed approach sites.

Figure 171: Improv. in Classrm Perf. by Type of Curricula for Students in Mixed Approach Sites



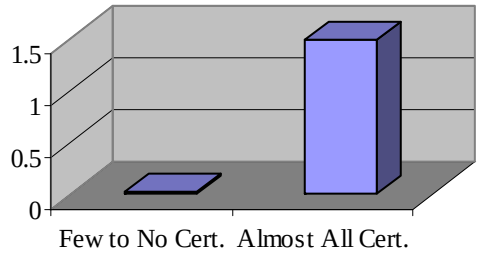
A Oneway ANOVA comparison of means indicates that there is a significant difference in the improvement of classroom performance based upon type of curricula used by site staff (F=3.745, df=2, p=0.024). The average improvement in classroom performance for students in sites where the staff prepared their own curricula was 4.88 (n=63, SD=0.90), which was less than a slight improvement. This average is significantly lower than the average improvement of students in sites where the staff varied between using prepared curricula and developing their own lesson plans (mean=5.25, n=741, SD=1.06, p=0.024), which was more than a slight improvement. Therefore, the average improvement in classroom performance was higher for students in mixed approach sites where a varied approach was used than it was for students in mixed approach sites where staff used prepared curricula. (See Figure 171.)

Staff Certification

There are no significant relationships between the difference in PACT scores and the level of staff certification for students in mixed approach sites.

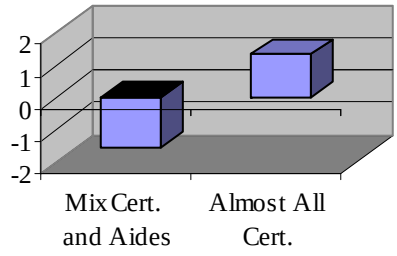
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 referrals is significantly different based upon the level of staff certification (F=5.921, df=2, p=0.003). The average difference in yearly referrals for students in sites that had few to no certified teachers was an increase of 0.03 referrals (n=63, SD=2.26). This average is significantly lower than the difference in yearly referrals of students in sites where almost all of the teachers were certified (mean=1.49, n=180, SD=3.73, p=0.003). Therefore, students in mixed approach sites that had almost all certified teachers had a greater increase in referrals than students in mixed approach sites that had few to no certified teachers. (See Figure 172.)

Figure 172: Difference in Referrals by Staff Certification for Students in Mixed Approach Sites



There are no significant relationships between the difference in absences and level of staff certification for students in mixed approach sites.

Figure 173: Difference in Science Grades by Staff Certification for Youth in Mixed Approach Sites



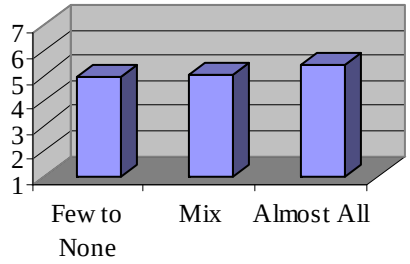
A Oneway ANOVA comparison of means indicates that the difference between first and last quarter science grades is significantly different based upon the level of staff certification (F=6.194, df=2, p=0.002). The average difference in science grades for students in sites that had mix of certified teachers and aides was a decrease of 1.55 points (n=511, SD=16.16). This average is significantly lower than the difference in science grades for students in sites where there was almost all certified teachers (mean=1.33, n=504, SD=9.13, p=0.001). Therefore, the science grades for students in mixed approach sites that had a mix of certified teachers and aides decreased, while the science grades for students in mixed approach sites that had almost all certified teachers increased. (See Figure 173.)

There are no significant relationships between the difference in ELA and math grades and level of staff certification for students in mixed approach sites.

Oneway ANOVA comparison of means indicates that there is a significant difference in the improvement of classroom performance based upon the level of staff certification (F=26.419, df=2, p=0.000). The average improvement in classroom performance for students in sites where few to none of the staff were certified was 4.96 (n=134, SD=1.03), which was somewhat less than a slight improvement. This average is significantly lower than the average improvement of students in sites that had almost all certified teachers (mean=5.44, n=611, SD=1.05, p=0.000), which was a slight to moderate improvement. Furthermore, the average improvement for students in sites that

had a mix of certified teachers and aides is significantly lower than the average improvement of students in sites that had almost all certified teachers (mean=5.04, n=652, SD=1.08, p=0.000), which was a slight improvement. Therefore, the average improvement in classroom performance was higher for students who attended mixed approach sites that had almost all certified teachers than it was for both students in mixed approach sites with a mix of certified teachers and aides and students in mixed approach sites that had few to no certified teachers. (See Figure 174.)

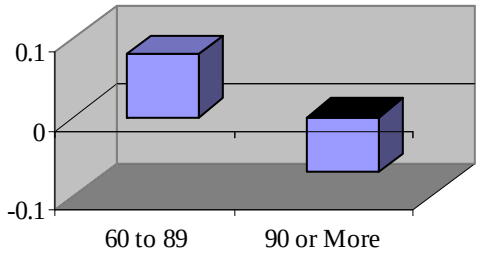
Figure 174: Improvement in Classroom Perf. by Staff Cert. for Students in Mixed Approach Sites



Number of Days Present

A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Science PACT scores is significantly different based upon the number of days the students were present in the program (F=3.085, df=3, p=0.027). The average difference in Science PACT scores for students that attended 60 to 89 days was an increase of 0.08 points (n=254, SD=0.607). This average is significantly higher than the difference in Science PACT scores for students who attended 90 or more days (mean=-0.07, n=262, SD=0.62, p=0.016). Therefore, the Science PACT scores for students who attended a mixed approach site for 60 to 89 days increased, while the Science PACT scores for students who attended a mixed approach site for 90 or more days decreased. (See Figure 175.)

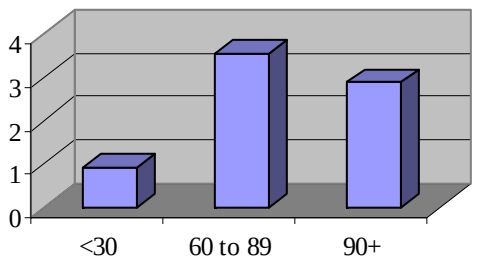
Figure 175: Difference in Science PACT Scores by Days Present for Students in Mixed Approach Sites



There are no significant relationships between the difference in ELA, Math, and Social Studies PACT scores by the number of days the student was present in the program for students in mixed approach sites.

A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different based upon the number of days the students were present in the program (F=5.041, d=3, p=0.002). The average difference in yearly absences for students that attended less than 30 days was an increase of 0.92 days (n=122, SD=9.09). This average is significantly lower than the difference in yearly absences of students who attended 60 to 89 days (mean=3.55, n=157, SD=6.67, p=0.002) and those who attended more than 90 days (mean=2.87, n=267, SD=4.05, p=0.017). Therefore, the difference in yearly absences for students who attended a mixed approach site for less than 30 days is significantly lower than that of students who attended a mixed approach site for 60 to 89 days and those who attended a mixed approach site for 90 or more days. (See Figure 176.)

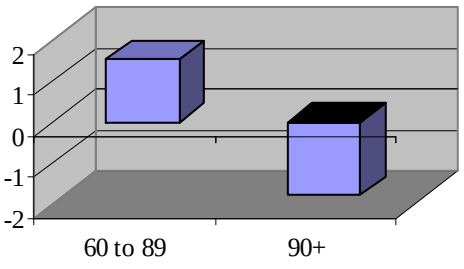
Figure 176: Difference in Absences by Days Present for Students in Mixed Approach Sites



There are no significant relationships between the difference in discipline referrals and the number of days the students attended the program for students in the mixed approach sites.

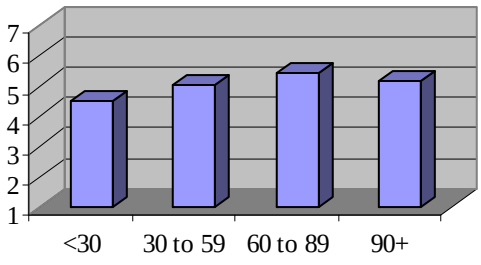
A Oneway ANOVA comparison of means indicates that the difference between the first and last grading period science grades is significantly different based upon the number of days the students were present in the program (F=4.279, df=3, p=0.005). The average difference in science grades for students that attended 60 to 89 days was an increase of 1.55 points (n=302, SD=9.82). This average is significantly higher than the difference in science grades for students who attended 90 or more days (mean=-1.79, n=361, SD=15.87, p=0.006). Therefore, the science grades for students who attended a mixed approach site for 60 to 89 days increased, while the science grades for students who attended a mixed approach site for 90 or more days decreased. (See Figure 177.)

Figure 177: Diff in Science Grades by Days Present for Students in Mixed Approach Sites



There are no significant relationships between the differences in ELA or math grades and the number of days the students were present in the program for students in mixed approach sites.

Figure 178: Imprvmnt in Classrm Perf. by Days Present for Students in Mixed Approach Sites

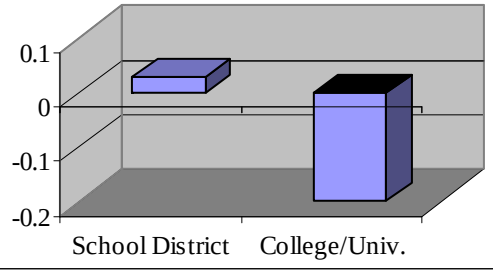


A Oneway ANOVA comparison of means indicates that there is a significant difference in the improvement of classroom performance according to the number of days the students is present in the program for mixed approach sites (F=16.046, df=3, p=0.000). The average improvement in classroom performance for students that attended less than 30 days was 4.51 (n=52, SD=1.51), which was between no change and a slight improvement. This average is significantly lower than the average improvement of students who attended 30 to 59 days (mean=5.04, n=262, SD=1.02, p=0.006), which was a slight improvement, 60 to 89 days (mean=5.42, n=453, SD=1.01, p=0.000), which was a slight to moderate improvement, and 90 or more days (mean=5.18, n=630, SD=1.07, p=0.000), which was somewhat more than a slight improvement. Furthermore, the average improvement for students who attended 30 to 59 days is significantly lower than the average improvement of students who attended 60 to 89 days (p=0.000), and the average improvement for students who attended 60 to 89 days is significantly higher than the average improvement of students who attended 90 or more days (p=0.001). Therefore, the average improvement in classroom performance was highest for students who attended 60 to 89 days in mixed approach sites, followed by students who attended 30 to 59 days and 90 or more days in mixed approach sites. The average improvement for students who attended less than 30 days is significantly less than that of a student who attended 30 days or more in mixed approach sites. (See Figure 178.)

Influence of Extraneous Variables

A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Science PACT scores is significantly different based upon the type of organization that sponsored the site (F=5.585, df=2, p=0.004). The average difference in Science PACT scores for students that attended a site sponsored by a school district was an increase of 0.03 points (n=641, SD=0.59). This average is significantly higher than the difference in Science PACT scores for students who attended a site sponsored by a college or university (mean=-0.20, n=76, SD=0.57, p=0.005). Therefore, Science PACT scores for students who attended a mixed approach site sponsored by a college or university decreased, while Science PACT scores for students who attended a mixed approach site sponsored by school districts increased. (See Figure 179.)

Figure 179: Diff in Science PACT Scores by Sponsoring Org. for Students in Mixed Approach Sites



There are no significant relationships between the differences in ELA, Math, and Social Studies PACT scores or absences and referrals by the type of sponsoring organization for students in mixed approach sites.

A Oneway ANOVA comparison of means indicates that the difference between first and last grading period math grades is significantly different according to the type of sponsoring organization (F=8.713, df=2, p=0.000). The average difference in math grades for students that attended a site sponsored by a school district was an increase of 0.34 points (n=909, SD=8.73). This average is significantly higher than the difference in math grades for students who attended a site sponsored by a community-based organization (mean=-4.13, n=143, SD=25.21, p=0.000). Therefore, the average math grades for students who attended a mixed approach site sponsored by a school district increased, while the average math grades for students who attended a mixed approach site sponsored by a community-based organization decreased. (See Figure 180.)

Figure 180: Diff in Math Grades by Sponsoring Organization for Students in Mixed Approach Sites

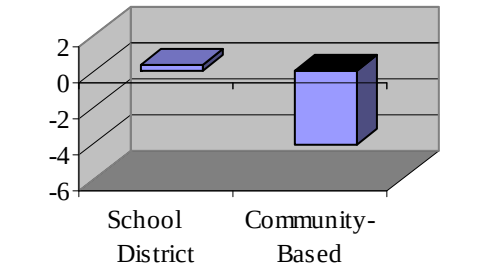
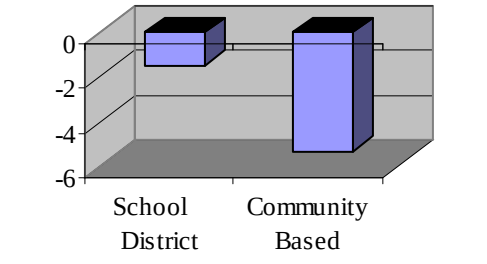


Figure 181: Diff in Science Grades by Sponsoring Organization for Students in Mixed Approach Sites



A Oneway ANOVA comparison of means indicates that the difference between first and last grading period science grades is significantly different based upon the type of sponsoring organization (F=14.82, df=2, p=0.000). The average difference in science grades for students that attended a site sponsored by a school district was a decrease of 1.49 points (n=795, SD=9.72). This average is significantly higher than the difference in science grades for students who attended a site sponsored by a community-based organization (mean=-5.32, n=143, SD=25.58, p=0.000).

Therefore, the average science grades for students who attended a mixed approach site sponsored by a school district decreased less than the average math grades for students who attended a mixed approach site sponsored by a community-based organization. (See Figure 181.)

There are no significant relationships between the difference in ELA grades and the type of sponsoring organization for students in mixed approach sites.

A Oneway ANOVA comparison of means indicates that there is a significant difference in the improvement of classroom performance according to the sponsoring organization (F=25.939, df=2, p=0.000). The average improvement in classroom performance for students that attended a site sponsored by a community-based organization was 4.48 (n=103, SD=1.20), which was between no change and a slight improvement. This average is significantly lower than the improvement for students who attended a site sponsored by a college or university (mean=5.23, n=98, SD=0.78, p=0.000), which was more than a slight improvement, and those who attended a site sponsored by a school district (mean=5.26, n=1196, SD=1.07, p=0.000), which was also more than a slight improvement. Therefore, the average improvement in classroom performance for students who attended a mixed approach site sponsored by a community-based organization was lower than the average improvement of students who attended both mixed approach sites sponsored by a college or university and mixed approach sites sponsored by a school district. (See Figure 182.)

Figure 182: Imprvmnt in Classrm Perf. by Sponsoring Org. for Students in Mixed Approach Sites

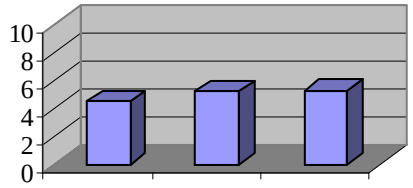
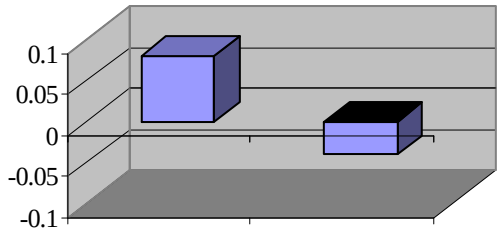


Figure 183: Difference in Science PACT Scores by Site Location for Students in Mixed Approach Sites

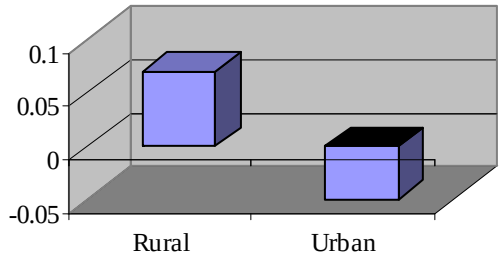


An independent samples t-test indicates that the difference between the 2005 and 2006 Science PACT scores is significantly different for mixed approach sites that were located in a rural setting compared to mixed approach sites that were located in an urban setting (t=2.421, df=780, p=0.016). The average difference in Science PACT scores for students in sites that were located in a rural setting was an increase of 0.08 points (n=221, SD=0.63). The average difference in Science PACT scores for students in sites that were located in an urban setting was a decrease of 0.04 points (n=561, SD=0.58). Therefore, students in mixed approach sites that were located in a rural setting had an increase in Science PACT scores, while students in mixed approach sites that were located in an urban setting had a decrease in Science PACT scores. (See Figure 183.)

An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores are significantly different for students in mixed approach sites that were located in a rural setting compared to students in mixed approach sites that were located in an urban setting (t=2.128, df=363.5, p=0.034). The average difference in Social Studies PACT scores for students in

sites that were located in a rural setting was an increase of 0.07 points (n=221, SD=0.77). The average difference in Social Studies PACT scores for students in sites that were located in an urban setting was a decrease of 0.05 points (n=547, SD=0.67). Therefore, students in mixed approach sites that were located in a rural setting had an increase in Social Studies PACT scores, while students in mixed approach sites that were located in an urban setting had a decrease in Social Studies PACT scores. (See Figure 184.)

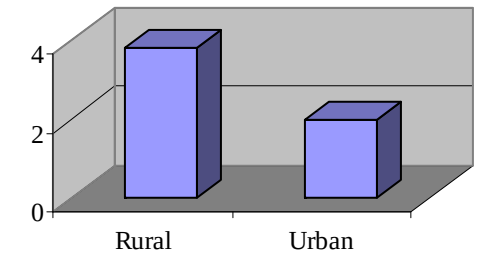
Figure 184: Diff in Social Studies PACT Scores by Site Location for Students in Mixed Approach Sites



There are no significant relationships between the difference in ELA and Math PACT scores and site location for students in mixed approach sites.

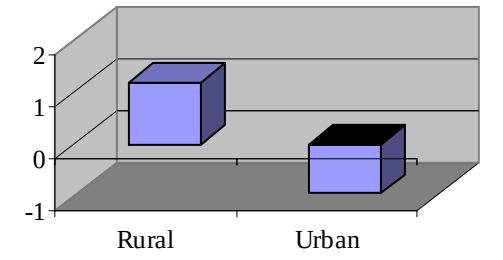
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different for sites that were located in a rural setting compared to sites that were located in an urban setting for students in mixed approach sites (t=2.905, df=248.1, p=0.004). The average difference in yearly absences for students in sites that were located in a rural setting was an increase of 3.82 absences (n=198, SD=8.45). The average difference in yearly absences for students in sites that were located in an urban setting was an increase of 1.97 absences (n=508, SD=4.80). Therefore, students in sites that were located in a rural setting had a greater increase in yearly absences than students in sites that were located in an urban setting for mixed approach sites. (See Figure 185.)

Figure 185: Difference in Absences by Site Location for Students in Mixed Approach Sites



There are no significant relationships between the difference in referrals and site location for students in mixed approach sites.

Figure 186: Difference in Math Grades by Site Location for Students in Mixed Approach Sites

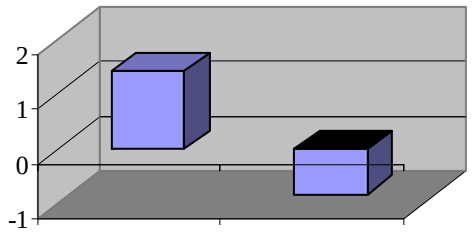


An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different for students in mixed approach sites that were located in a rural setting compared to students in mixed approach sites that were located in an urban setting (t=3.152, df=857.4, p=0.002). The average difference in math grades for students in sites that were located in a rural setting was an increase of 1.19 points (n=318, SD=8.80). The average difference in math grades for students in sites that were located in an urban setting was a decrease of 0.94 points (n=830, SD=13.23). Therefore, students in mixed approach sites that were located in a rural setting had an increase in math grades, while students in mixed approach sites that were located in an urban setting had a decrease in math grades. (See Figure 186.)

An independent samples t-test indicates that the difference between the first and last grading period science grades is significantly different for students in mixed approach sites that were located in a rural setting compared to students in mixed approach sites that were located in an urban setting (t=2.990, df=904.2, p=0.003). The average difference in science grades for students in sites that were located in a rural setting was an increase of 1.42 points (n=318, SD=9.28). The average difference in science grades for students in sites that were located in an urban setting was a decrease of 0.82 points (n=716, SD=14.48). Therefore, students in mixed approach sites that were located in a rural setting had an increase in science grades, while students in mixed approach sites that were located in an urban setting had a decrease in science grades. (See Figure 187.)

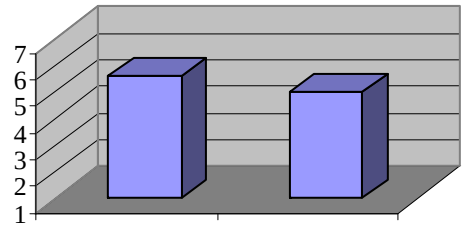
There are no significant relationships between the difference in ELA grades and site location for students in mixed approach sites.

Figure 187: Difference in Science Grades by Site Location for Students in Mixed Approach Sites



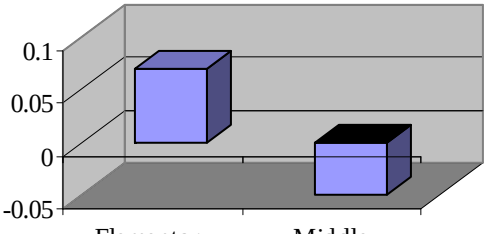
An independent samples t-test indicates that there is a significant difference in the improvement of classroom performance for mixed approach sites that were located in a rural setting compared to mixed approach sites that were located in an urban setting (t=10.347, df=1395, p=0.000). The average improvement in classroom performance for students in sites that were located in a rural setting was 5.62 (n=448, SD=0.99), which is a slight to moderate improvement. The average improvement in classroom performance for students in sites that were located in an urban setting was 5.01 (n=949, SD=1.06), which is a slight improvement. Therefore, students in mixed approach sites that were located in a rural setting had greater average improvement in classroom performance than students in mixed approach sites located in an urban setting. (See Figure 188.)

Figure 188: Imprvmnt in Classrm Perf. by Site Location for Students in Mixed Approach Sites



An independent samples t-test indicates that the difference between the 2005 and 2006 Math PACT scores are significantly different for elementary school students compared to middle school students in the mixed approach sites (t=2.592, df=610.3, p=0.010). The average difference in Math PACT scores for students in elementary school was an increase of 0.01 points (n=319, SD=0.64). The average difference in Math PACT scores for students in middle school was a decrease of 0.05 points (n=466, SD=0.60). Therefore, elementary school students in mixed approach sites experienced an increase in Math PACT scores, while middle school students in mixed approach sites had a decrease in Math PACT scores. (See Figure 189.)

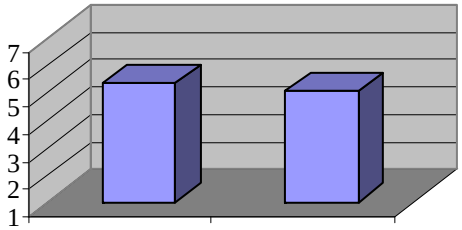
Figure 189: Difference in Math PACT Scores by Grade Level for Students in Mixed Approach Sites



There are no significant relationships between the difference in ELA, Science, and Social Studies PACT scores, absences and referrals, or improvement in classroom performance by grade level for students in mixed approach sites. There are no significant relationships between the difference in PACT scores, absences and referrals, or grades in school by gender for students in mixed approach sites.

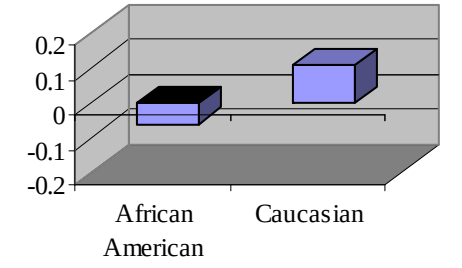
An independent samples t-test indicates that there is a significant difference between the improvement of classroom performance by gender of students in the mixed approach sites (t=4.828, df=1395, p=0.000). The average improvement in classroom performance for females was 5.34 (n=710, SD=1.06), which is more than a slight improvement. The average improvement in classroom performance for males was 5.06 (n=687, SD=1.08), which is a slight improvement. Therefore, female students in mixed approach sites had a higher average improvement in classroom performance than male students in mixed approach sites. (See Figure 190.)

Figure 190: Improvement in Classroom Perf. by Gender for Students in Mixed Approach Sites



A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 Math PACT scores is significantly different based upon the ethnicity of the student (F=3.90, df=3, p=0.009). The average difference in Math PACT scores for African American students was a decrease of 0.06 points (n=526, SD=0.63). This average is significantly lower than the average difference in Math PACT scores for Caucasian students (mean=0.11, n=235, SD=0.67, p=0.007). Therefore, the Math PACT scores for African American students in mixed approach sites decreased, while the Math PACT scores for Caucasian students in mixed approach sites increased. (See Figure 191.)

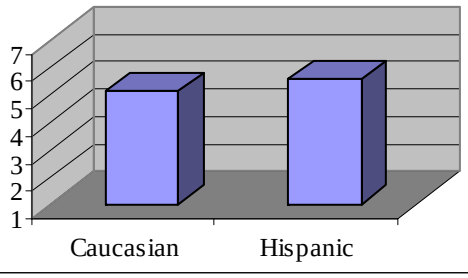
Figure 191: Difference in Math PACT Scores by Ethnicity for Students in Mixed Approach Sites



There are no significant relationships between the difference in ELA, Science, and Social Studies PACT scores, absences and referrals, or grades in school by ethnicity for students in mixed approach sites.

A Oneway ANOVA comparison of means indicates that there is a significant difference in the improvement of classroom performance based upon the ethnicity of the student (F=3.895, df=2, p=0.021). The average improvement in classroom performance for Caucasian students was 5.12 (n=374, SD=1.13), which is somewhat more than a slight improvement. This average is significantly lower than the average improvement in classroom performance for Hispanic students (mean=5.56, n=48, SD=0.91,

Figure 192: Improvement in Classroom Perf. by Ethnicity for Students in Mixed Approach Sites

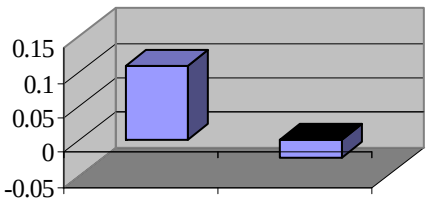


p=0.021), which is a slight to moderate improvement. Therefore, the average improvement in classroom performance was greater for Hispanic students in mixed approach sites than it was for Caucasian students in mixed approach sites. (See Figure 192.)

Tests to discover if there were differences in PACT scores according to whether or not the students in mixed approach sites received free or reduced lunch were invalid due to the small numbers in some groups. There are no significant relationships between the difference in absences and referrals, grades in school, or classroom performance by whether or not students in mixed approach sites received free or reduced lunch.

An independent samples t-test indicates that the difference between 2005 and 2006 Math PACT scores is significantly different based on special needs status (t=-2.11, df=783, p=0.035). The average difference in Math PACT scores for students in mixed approach sites who are reported as having a special need was an increase of 0.11 points (n=131, SD=0.60). The average difference in Math PACT scores for students in mixed approach sites who do not have a special need was a decrease of 0.02 points (n=1728, SD=0.67). Therefore, students in mixed approach sites who are reported as having a special need had an increase in their Math PACT scores whereas the Math PACT scores for students who do not have a special need remained about the same. (See Figure 193.)

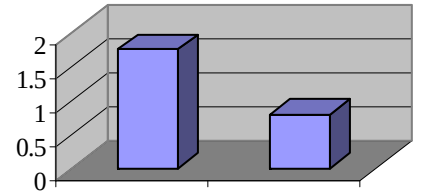
Figure 193: Difference in Math PACT by Special Needs Status for Students in Mixed Approach Sites



There are no significant differences in ELA, Science and Social Studies PACT scores according to the students' special needs status.

An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different based on the special needs status of students in mixed approach sites (t=-3.11, df=165.2, p=0.002). The average difference in yearly referrals for students in mixed approach sites that were reported as having a special need was an increase of 1.75 referrals (n=118, SD=3.03). The average difference in yearly referrals for students in mixed approach sites that were reported as having a special need was an increase of 0.80 referrals (n=553, SD=2.88). Therefore, special needs students in mixed approach sites have a significantly greater increase in discipline referrals than students who are not special needs status. (See Figure 194.)

Figure 194: Difference in Referrals by Special Needs Status for Students in Mixed Approach Sites

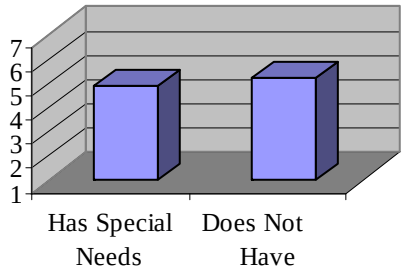


There are no significant differences in absences or grades in school by special needs status.

An independent samples t-test indicates that there is a significant difference between classroom performance based upon special needs status for students in mixed approach sites (t=4.56,

df=1342, p=0.000). The average improvement in classroom performance for students with a special need was 4.92 (n=273, SD=1.13). The average improvement in classroom performance for students without a special need was 5.25 (n=5.25, SD=1.05). Therefore, the average improvement in classroom performance was significantly less for students with a special need than the average improvement in classroom performance for students without a special need. (See Figure 195.)

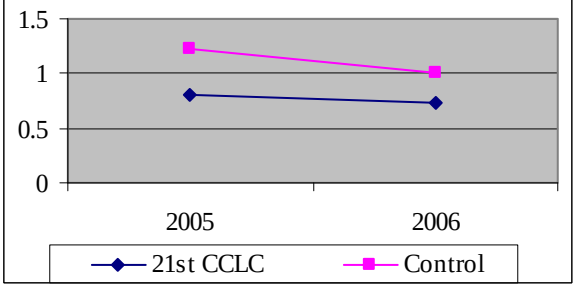
Figure 195: Imprvmnt in Classrm Perf. by Special Needs Status for Students in Mixed Approach Sites



Comparison with Control Group

An independent samples t-test indicates that there is a significant difference between the Social Studies PACT scores from 2005 to 2006 for students in the 21st CCLC mixed approach sites compared to students in the control group (t=-2.093, df=1035.1, p=0.037). The average difference in scores from 2005 to 2006 for the students in the 21st CCLC mixed approach sites was a decrease of 0.03 points (n=757, SD=0.69). The average difference in scores from 2005 to 2006 for the control group was a decrease of 0.09 points (n=4887, SD=0.73). Therefore, students in the 21st CCLC mixed approach sites experienced less of a decrease in Social Studies PACT scores between 2005 and 2006 than students in the control group at the same schools. (See Figure 196.)

Figure 196: Social Studies PACT for 21st CCLC Mixed Approach Sites and Control Group



There are no significant relationships between the differences in 2005 and 2006 ELA, Math and Science scores for students in the 21st CCLC mixed approach sites compared to students in the control group.

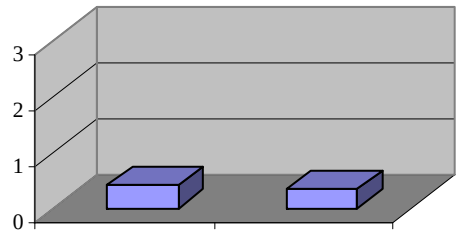
Cluster Three: Pedagogical Sites

The third cluster of the Site Policy primary factor is the Pedagogical cluster. This cluster contains 21 sites. Of these 21 sites, 14 sites provided data on 1,040 students. Of these 1,040 students, data for both 2005 and 2006 PACT scores were reported for 544 students in English/Language Arts (ELA), 547 students in mathematics, 544 students in science, and 543 students in social studies. Data for both 2004-2005 and 2005-2006 absences and referrals were reported for 280 students and 252 students, respectively. Data for both first and last quarter grades in school were reported for 829 students in ELA, 830 students in mathematics, and 824 students in science. Teacher surveys on classroom performance were completed for 629 students. It should be noted that the data available for analysis represents a small proportion of pedagogical sites.

Changes in Dependent Variables

A paired samples t-test indicates that there was a significant difference between the Science PACT scores from 2005 to 2006 for students in pedagogical sites (t=-2.16, df=785, p=0.031). The average Science PACT score for 2005 was 0.41 (n=544, SD=0.67), which is between Below Basic and Basic. These same students had average Science PACT score for 2006 of 0.35 (n=544, SD=0.59), which is just above Below Basic. Therefore, the average Science PACT score of students in pedagogical sites decreased significantly from 2005 to 2006. (See Figure 197.)

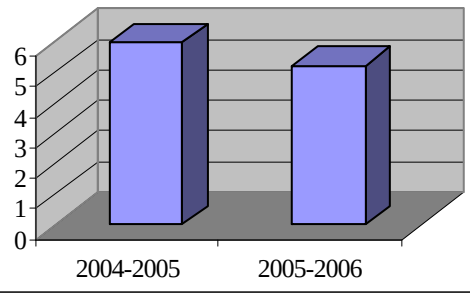
Figure 197: Science PACT Scores for Students in Pedagogical Sites



There are no significant differences in ELA, Math, or Social Studies PACT scores between 2005 and 2006 for students in pedagogical sites.

A paired samples t-test indicates that there was a significant difference between the number of absences in the 2004-2005 school year and the 2005-2006 school year for students in pedagogical sites (t=3.25, df=279, p=0.001). Students had an average of 6.74 absences (n=280, SD=7.90) during the 2004-2005 school year, whereas the same students had an average of 5.23 absences (n=280, SD=4.99) during the 2005-2006 school year. Therefore, the average number of absences for students in pedagogical sites decreased from the 2004-2005 school year to the 2005-2006 school year. (See Figure 198.)

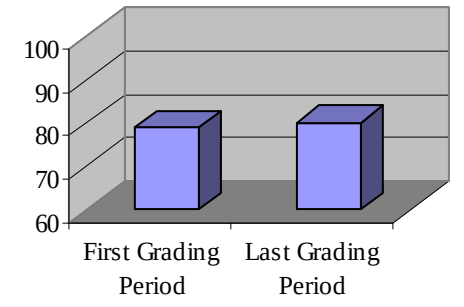
Figure 198: Absences for Students in Pedagogical Sites



There are no significant differences in referrals for students in pedagogical sites.

A paired samples t-test indicates that there was a significant difference between the ELA grades for the first and last grading period of the 2005-2006 school year for students in the pedagogical sites (t=-4.13, df=828, p=0.000). Students' average ELA grade for the first grading period was 79.03 (n=829, SD=9.07). Students' average ELA grade for the last grading period was 80.20 (n=829, SD=8.64). Therefore, students' average ELA grade significantly increased from the first to the last grading period for those students in pedagogical sites. (See Figure 199.)

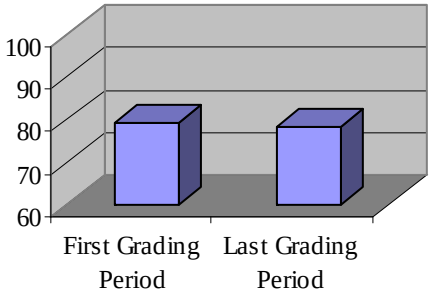
Figure 199: ELA Grades for Students in Pedagogical Sites



A paired samples t-test indicates that there was a significant difference between the math grades for the first and last grading period of the 2005-2006 school year for students in the pedagogical sites (t=3.45, df=829, p=0.001). Students' average math grade for the first grading period was

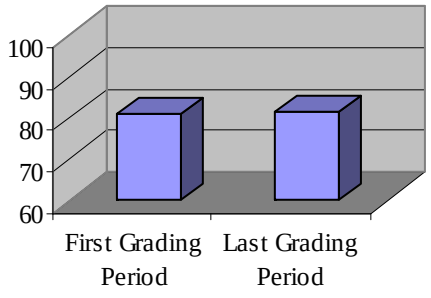
79.27 (n=830, SD=8.58). Students' average math grade for the last grading period was 78.33 (n=830, SD=8.78). Therefore, students' average math grade significantly decreased from the first to the last grading period for those students in pedagogical sites. (See Figure 200.)

Figure 200: Math Grades for Students in Pedagogical Sites



A paired samples t-test indicates that there was a significant difference between the science grades for the first and last grading period of the 2005-2006 school year for students in the pedagogical sites (t=-2.03, df=823, p=0.043). Students' average science grade for the first grading period was 79.56 (n=824, SD=9.36). Students' average science grade for the last grading period was 80.23 (n=824, SD=9.08). Therefore, students' average science grade significantly increased from the first to the last grading period for those students in pedagogical sites. (See Figure 201.)

Figure 201: Science Grades for Students in Pedagogical Sites



A one-sample t-test indicates that the students' average improvement in classroom performance is significantly different from the test value, which was that the student did not change (t=35.035, df=628, p=0.000). The mean average improvement for students in pedagogical sites was 5.41 (n=629, SD=1.01), compared to the test value of 4. Therefore, students in the pedagogical sites have significantly improved their classroom performance.

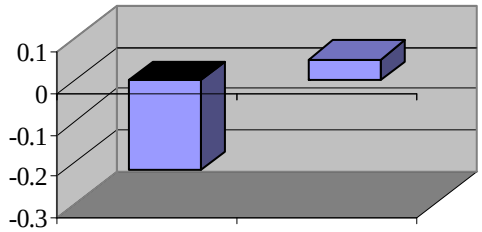
A one-sample t-test indicates that the number of items the student needed to improve on in classroom performance is significantly different from the test values, which were that the student needed to improve on all items (t=15.40, df=1042, p=0.000) and that the student did not need to improve on any items (t=-152.42, df=1042, p=0.000). The mean number of items that students in pedagogical sites needed to improve on was 0.92 (n=1043, SD=1.92), compared to the test value of 0 (that they needed to improve on all items) and compared to the test value of 10 (that they did not need to improve on any items). Therefore, students in the pedagogical sites need to improve on some aspects of classroom performance, but not on all aspects.

Influence of Sub-Factors

A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Math PACT scores is significantly different between two of the clusters of the Internal Environment sub-factor for students in pedagogical sites (F=6.640, df=2, p=0.001). The average difference in Math PACT scores for students in sites with deprived internal environments was a decrease of 0.22 (n=77, SD=0.55). This average is significantly lower than the average difference in Math PACT scores of students in sites with average internal environments (mean=0.05, n=339, SD=0.64, p=0.002). Therefore, the average Math PACT score for students

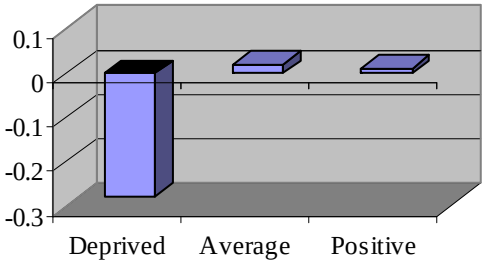
in pedagogical sites with deprived internal environments decreased, while the average Math PACT score for students in sites with average internal environments increased. (See Figure 202.)

Figure 202: Diff in Math PACT Scores by Internal Environment for Students in Pedagogical Sites



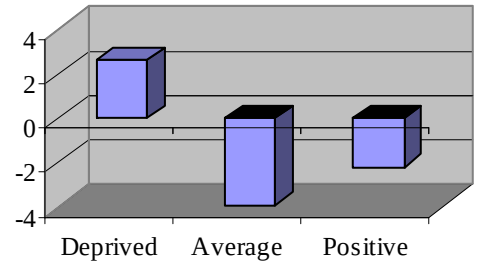
A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Social Studies PACT scores is significantly different between the clusters of the Internal Environment sub-factor for students in pedagogical sites (F=6.268, df=2, p=0.002). The average difference in Social Studies PACT scores for students in sites with deprived internal environments was a decrease of 0.04 points (n=74, SD=0.81). This average is significantly lower than the average difference in Math PACT scores of students in sites with average internal environments (mean=0.02, n=339, SD=0.67, p=0.002) and students in sites with positive internal environments (mean=0.01, n=77, SD=0.50, p=0.019. Therefore, the average Social Studies PACT score for students in pedagogical sites with deprived internal environments decreased, while the average Social Studies PACT score for students in sites with average and positive internal environments increased. (See Figure 203.)

Figure 203: Diff in Social Studies PACT Scores by Internal Envir. for Students in Pedagogical Sites



There are no significant relationships between the differences in ELA and Science PACT scores by internal environment for students in pedagogical sites.

Figure 204: Diff in Absences by Internal Environment for Students in Pedagogical Sites

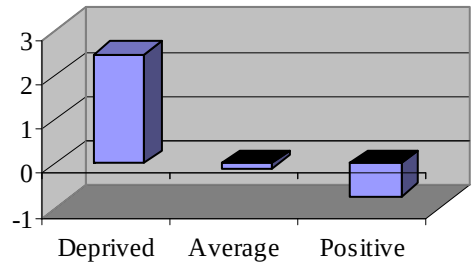


A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different between the clusters of the Internal Environment sub-factor for students in pedagogical sites (F=22.193, df=2, p=0.000). The average difference in yearly absences for students in sites with deprived internal environments was an increase of 2.64 absences (n=88, SD=5.70). This average is significantly higher than the average difference in yearly absences of students in sites with average internal environments (mean=-3.93, n=134, SD=8.23, p=0.000) and those in sites with positive internal environments (mean=-2.21, n=58, SD=6.88, p=0.000). Therefore, the absences for students in pedagogical sites with deprived internal environments increased, while the absences for students in pedagogical sites with average and positive internal environments decreased. (See Figure 204.)

A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different between the clusters of the Internal Environment sub-factor (F=7.880, df=2, p=0.000). The average difference in yearly referrals for

students in sites with deprived internal environments was an increase of 2.48 referrals (n=56, SD=2.85). This average is significantly higher than the average difference in yearly referrals of students in sites with average internal environments (mean=-0.11, n=137, SD=5.86, p=0.002) and students in sites with positive internal environments (mean=-0.75, n=57, SD=2.73, p=0.001). Therefore, the referrals for students in pedagogical sites with deprived internal environments increased, while the absences for students in pedagogical sites with average and positive internal environments decreased. (See Figure 205.)

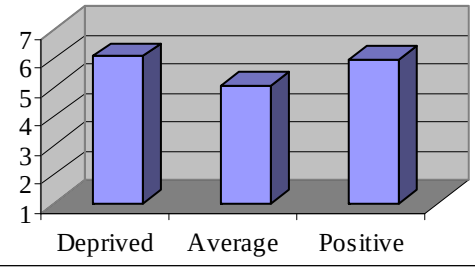
Figure 205: Diff in Yearly Referrals by Internal Envir. for Students in Pedagogical Sites



There are no significant relationships between the difference in grades and internal environment for students in pedagogical sites.

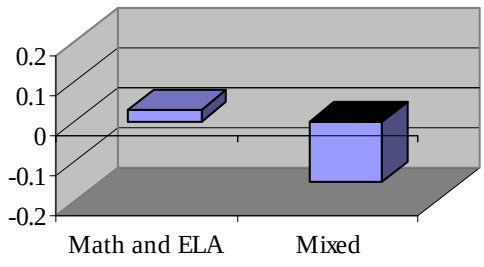
A Oneway ANOVA comparison of means indicates that the difference between the average improvement in classroom performance is significantly different between the clusters of the Internal Environment sub-factor for students in pedagogical sites (F=64.675, df=2, p=0.000). The average improvement for students in sites with average internal environments was 5.08 (n=358, SD=0.86), which was a slight improvement. This average is significantly lower than the average improvement of students in sites with deprived internal environments (mean=6.07, n=60, SD=0.52, p=0.000), which was a moderate improvement and of students in sites with positive internal environments (mean=6.00, n=127, SD=1.19, p=0.000), which also was a moderate improvement. Therefore, the average improvement of students in pedagogical sites with average environments is significantly lower than that of students in pedagogical sites with deprived and positive internal environments. (See Figure 206.)

Figure 206: Imprvmnt in Classrm Perf. by Internal Enviro. for Students in Pedagogical Sites



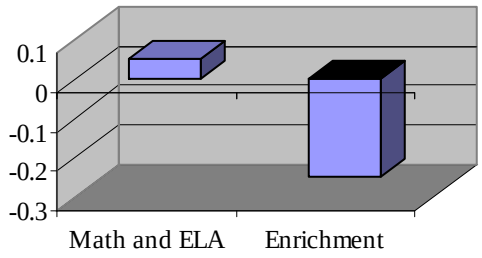
A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Science PACT scores is significantly different between two of the clusters of the Activity Subject Areas sub-factor for students in pedagogical sites (F=5.114, df=2, p=0.006). The average difference in Science PACT scores for students in sites with a focus on math and ELA was an increase of 0.03 points (n=194, SD=0.54). This average is significantly higher than the average difference in Science PACT scores for students in sites with mixed subject areas (mean=-0.25, n=55, SD=0.72, p=0.006). Therefore, students in pedagogical sites with mixed subject areas had a decrease in Science PACT scores, while students in pedagogical sites with a focus on math and ELA had an increase in Science PACT scores. (See Figure 207.)

Figure 207: Diff in Science PACT Scores by Activity Subject Area for Students in Pedagogical Sites



A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Social Studies PACT scores is significantly different between two of the clusters of the Activity Subject Area sub-factor (F=4.309, df=2, p=0.014). The average difference in Social Studies PACT scores for students in sites with a focus on math and ELA was an increase of 0.05 points (n=193, SD=0.70). This average is significantly higher than the average difference in Social Studies PACT scores for students in sites with a focus on enrichment (mean=-0.25, n=55, SD=0.89, p=0.014). Therefore, students in pedagogical sites with a focus on enrichment had a decrease in Social Studies PACT scores, while students in pedagogical sites with a focus on math and ELA had an increase in Social Studies PACT scores. (See Figure 208.)

Figure 208: Diff in Social Studies PACT Scores by Activity Subject Area for Students in Pedag. Sites



There are no significant relationships between the difference in ELA and Math PACT scores and Activity Subject Areas for students in pedagogical sites.

A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different between the clusters within the Activity Subject Area sub-factor for students in pedagogical sites (F=28.607, df=2, p=0.000). The average difference in yearly absences for students in sites with a focus on enrichment was an increase of 4.56 absences (n=59, SD=4.74). This average is significantly higher than the average difference in yearly absences for students in sites with a focus on math and ELA (mean=-2.34, n=107, SD=5.05, p=0.000) and for students in sites with mixed subject areas (mean=-3.88, n=144, SD=9.39, p=0.000). Therefore, students in pedagogical sites with a focus on enrichment had an increase in absences, while students in pedagogical sites with a focus on math and ELA and mixed subject areas had a decrease in absences. (See Figure 209.)

Figure 209: Difference in Absences by Activity Subject Area for Students in Pedag. Sites

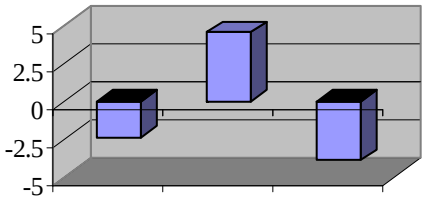
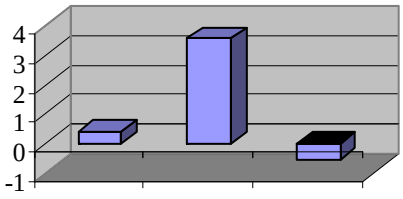


Figure 210: Difference in Referrals by Activity Subject Area for Students in Pedagogical Sites



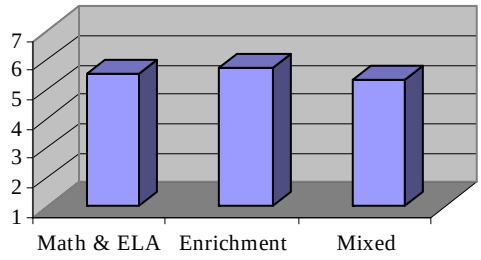
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different between the clusters within the Activity Subject Area sub-factor for students in pedagogical sites (F=8.294, df=2, p=0.000). The average difference in yearly referrals for students in sites with a focus on enrichment was an increase of 3.56 referrals (n=27, SD=2.85). This average is significantly higher than the average difference in yearly referrals for students in sites with a focus on math and ELA (mean=0.41, n=107, SD=6.72, p=0.006) and for students in sites with mixed subject areas (mean=-0.53, n=118, SD=2.13, p=0.000). Therefore, students in pedagogical sites with a focus on enrichment had a significantly greater

increase in absences than students in pedagogical sites with a focus on math and ELA, while students in pedagogical sites with mixed subject areas had a decrease in referrals. (See Figure 210.)

There are no significant relationships between the difference in grades and activity subject areas for students in pedagogical sites.

A Oneway ANOVA comparison of means indicates that there was a significant difference between the average improvement in classroom performance between the clusters within the Activity Subject Area sub-factor for students in pedagogical sites (F=5.483, df=2, p=0.004). The average improvement for students in sites with mixed subject areas was 5.32 (n=408, SD=1.06), which is more than a slight improvement. This average is significantly lower than the average improvement of students in sites with a focus on math and ELA (mean=5.55, n=184, SD=0.87, p=0.027), which is a slight to moderate improvement, and of students in sites with a focus on enrichment (mean=5.74, n=37, SD= 0.90, p=0.038), which is just below a moderate improvement. Therefore, the average improvement of students in pedagogical sites with mixed subject areas is significantly lower than that of students in pedagogical sites with a focus on math and ELA and pedagogical sites with a focus on enrichment. (See Figure 211.)

Figure 211: Improvement in Classroom Perf. by Activity Subject Area for Students in Pedag. Sites



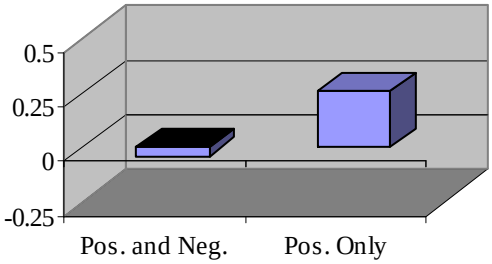
Influence of Independent Variables

Behavior Management Style

An independent samples t-test indicates that the difference between the 2005 and 2006 Math PACT scores is significantly different based upon behavior management style for pedagogical sites (t=-2.814, df=545, p=0.005). The average difference in Math PACT scores for students in sites that used both positive and negative behavior management was a decrease of 0.04 points (n=513, SD=0.62). The average difference in Math PACT scores for students in sites that used only positive behavior management was an increase of 0.26 points (n=34, SD=0.57). Therefore, students in pedagogical sites that utilized only positive behavior management techniques had an increase in Math PACT scores, while students in pedagogical sites that utilized both positive and negative behavior management experienced a decrease in Math PACT scores. (See Figure 212.)

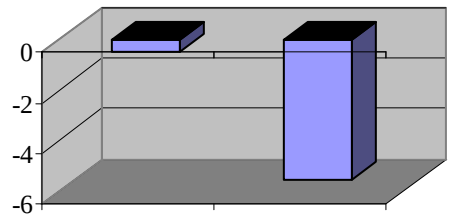
There are no significant relationships between the difference in ELA, Science, and Social Studies PACT scores and behavior management style for students in pedagogical sites.

Figure 212: Diff in Math PACT Scores by Behavior Mgmt Style for Students in Pedagogical Sites



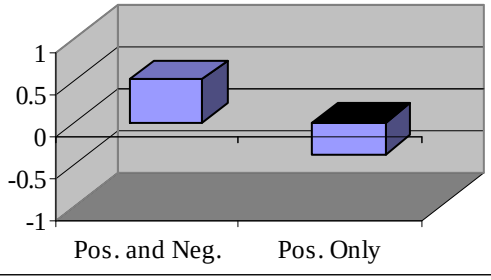
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different based upon behavior management style for students in pedagogical sites (t=3.287, df=63.8, p=0.002). The average difference in yearly absences for students in sites that used both positive and negative behavior management was a decrease of 0.49 days (n=224, SD=6.26). The average difference in yearly absences for students in sites that used only positive behavior management was a decrease of 5.61 days (n=56, SD=11.23). Therefore, students in pedagogical sites that utilized only a positive behavior management style had a significantly greater decrease in absences than students in sites that used both positive and negative behavior management styles. (See Figure 213.)

Figure 213: Diff in Absences by Behavior Management Style for Students in Pedagogical Sites



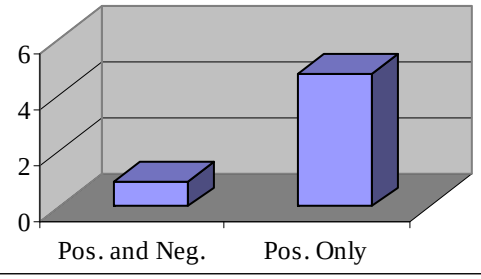
An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different based upon behavior management style for students in pedagogical sites (t=2.058, df=247.2, p=0.041). The average difference in yearly referrals for students in sites that used both positive and negative behavior management was an increase of 0.51 referrals (n=196, SD=5.43). The average difference in yearly referrals for students in sites that used only positive behavior management was a decrease of 0.38 referrals (n=56, SD=1.34). Therefore, students in pedagogical sites that utilized only positive behavior management styles had a decrease in referrals, while students in pedagogical sites that used both positive and negative behavior management styles had an increase in referrals. (See Figure 214.)

Figure 214: Diff in Referrals by Behavior Management Style for Students in Pedagogical Sites



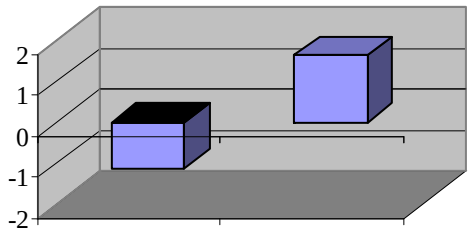
An independent samples t-test indicates that the difference between the first and last grading period ELA grades is significantly different based upon behavior management style for students in pedagogical sites (t=-3.461, df=827, p=0.001). The average difference in ELA grades for students in sites that used both positive and negative behavior management was an increase of 0.91 points (n=774, SD=8.13). The average difference in ELA grades for students in sites that used only positive behavior management was an increase of 4.82 points (n=55, SD=7.53). Therefore, students in pedagogical sites that utilized only a positive behavior management style had a significantly greater increase in ELA grades than students in pedagogical sites that utilized both positive and negative behavior management. (See Figure 215.)

Figure 215: Diff in ELA Grades by Behavior Management Style for Students in Pedagogical Sites



An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different based upon behavior management style for students in pedagogical sites (t=-2.504, df=828, p=0.012). The average difference in math grades for students in sites that used both positive and negative behavior management was a decrease of 1.12 points (n=775, SD=7.92). The average difference in math grades for students in sites that used only positive behavior management was an increase of 1.62 points (n=55, SD=6.70). Therefore, students in pedagogical sites that utilized only a positive behavior management style had an increase in math grades, while students in pedagogical sites that utilized both positive and negative behavior management had a decrease in math grades. (See Figure 216.)

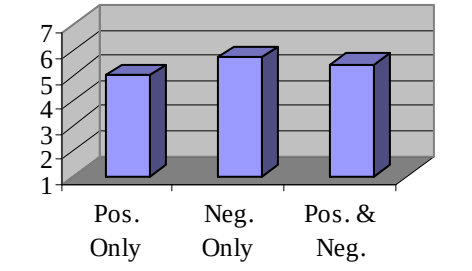
Figure 216: Diff in Math Grades by Behavior Management Style for Students in Pedagogical Sites



There are no significant relationships between the difference in science grades and behavior management style for students in pedagogical sites.

A Oneway ANOVA comparison of means indicates that there was a significant difference between average improvement in classroom performance based upon the behavior management style (F=4.182, df=2, p=0.016). The average improvement for students in sites that utilized only positive behavior management was 4.99 (n=37, SD=0.75), which is a slight improvement. This average is significantly lower than the average improvement of students in sites that utilized only negative behavior management (mean= 5.70, n=23, SD=0.98, p=0.023), which was just less than a moderate improvement and of students in sites that utilized both positive and negative behavior management (mean=5.43, n=569, SD=1.02, p=0.031), which was between a slight and a moderate improvement. Therefore, the average improvement of students in pedagogical sites that used only positive behavior management is significantly lower than that of students in pedagogical sites that used only negative behavior management and those that used both positive and negative behavior management. (See Figure 217.)

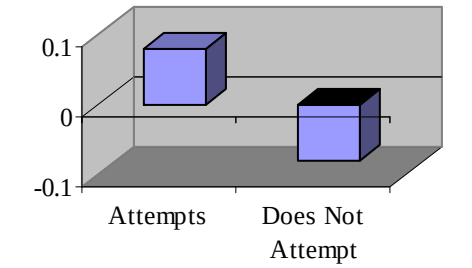
Figure 217: Imprvmnt in Classrm Perf. by Behavior Management Style for Students in Pedag. Sites



Group Identity for Behavior Management

An independent samples t-test indicates that the difference in Science PACT scores is significantly different for students in pedagogical sites that attempted to build group identity compared to students in pedagogical sites that did not attempt to build group identity (t=-2.359, df=102.0, p=0.020). The average difference in Science PACT scores for students in sites that attempted to build group identity was an increase of 0.08 points (n=61, SD=0.46). The average difference in Science

Figure 218: Difference in Science PACT Scores by Group Identity for Students in Pedagogical Sites

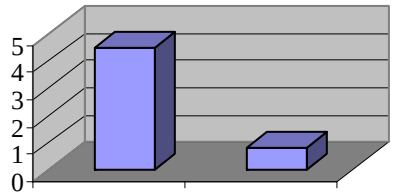


PACT scores for students in sites that did not attempt to build group identity was a decrease of 0.08 points (n=418, SD=0.67). Therefore, students in pedagogical sites that attempted to build group identity had an increase in Science PACT scores, while students in pedagogical sites that did not attempt to build group identity had a decrease in Science PACT scores. (See Figure 218.)

There are no significant relationships between the differences in ELA, Math, or Social Studies PACT scores and whether or not the site attempted to build group identity for pedagogical sites. Tests of significant differences in absences and referrals based upon whether or not the pedagogical site attempted to build group identity were invalid due to the small numbers in some groups.

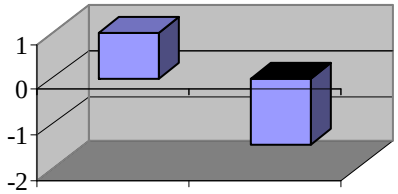
An independent samples t-test indicates that the difference between the first and last grading period ELA grades is significantly different for students in pedagogical sites that attempted to build group identity compared to students in pedagogical sites that did not attempt to build group identity (t=-3.602, df=717, p=0.000). The average difference in ELA grades for students in sites that attempted to build group identity was an increase of 4.48 points (n=67, SD=8.03). The average difference in ELA grades for students in sites that did not attempt to build group identity was an increase of 0.81 points (n=652, SD=8.03). Therefore, students in pedagogical sites that attempted to build group identity had a significantly greater increase in ELA grades than students in pedagogical sites that did not attempt to build group identity. (See Figure 219.)

Figure 219: Difference in ELA Grades by Group Identity for Students in Pedagogical Sites



An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different for students in pedagogical sites that attempted to build group identity compared to students in pedagogical sites that did not attempt to build group identity (t=-2.483, df=718, p=0.013). The average difference in math grades for students in sites that attempted to build group identity was an increase of 1.0 point (n=68, SD=8.51). The average difference in math grades for students in sites that did not attempt to build group identity was a decrease of 1.45 points (n=652, SD=7.66). Therefore, students in pedagogical sites that attempted to build group identity had a significantly greater increase in math grades than students in pedagogical sites that did not attempt to build group identity. (See Figure 220.)

Figure 220: Differences in Math Grades by Group Identity for Students in Pedagogical Sites



There are no significant relationships between the difference in science grades or in the improvement of classroom performance by whether or not the site attempted to build group identity for students in pedagogical sites.

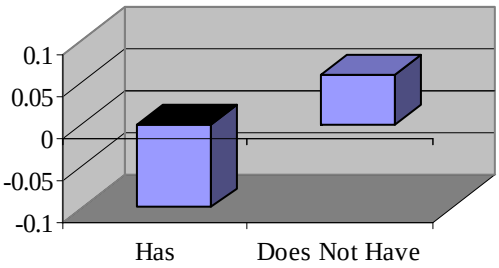
Intrinsic Rewards for Behavior Management

All tests to determine differences in PACT scores, absences and referrals, grades, and classroom performance based upon whether or not the site used intrinsic rewards in pedagogical sites were invalid due to the small numbers in some groups.

Physical Activity

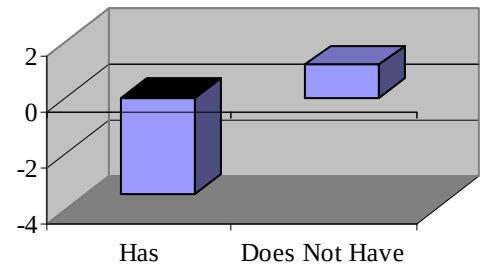
An independent samples t-test indicates that the difference between the 2005 and 2006 Science PACT scores is significantly different for students in pedagogical sites that incorporated physical activity into their schedule compared to students in pedagogical sites that did not incorporate physical activity into their schedule (t=2.426, df=542, p=0.016). The average difference in Science PACT scores for students in sites that had physical activities was a decrease of 0.10 points (n=412, SD=0.69). The average difference in Science PACT scores for students in sites that did not have physical activities was an increase of 0.06 points (n=132, SD=0.61). Therefore, students in pedagogical sites that incorporated physical activity into their schedule decreased in Science PACT scores, while students in pedagogical sites that did not have physical activity in their schedule increased in Science PACT scores. (See Figure 221.)

Figure 221: Difference in Science PACT Scores by Physical Activity for Students in Pedagogical Sites



There are no significant relationships between the difference in ELA, Math, and Social Studies PACT scores and physical activities for students in pedagogical sites.

Figure 222: Difference in Absences by Physical Activity for Students in Pedagogical Sites



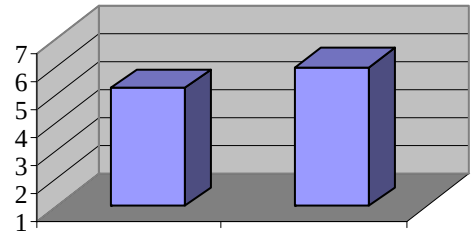
An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different for students in pedagogical sites that incorporated physical activity into their schedule compared to students in pedagogical sites that did not incorporate physical activity into their schedule (t=5.178, df=278, p=0.000). The average difference in yearly absences for students in sites that had physical activity was a decrease of 3.46 days (n=163, SD=7.87). The average difference in yearly absences for students in sites that did not have physical activity was an increase of 1.21 days (n=117, SD=6.78). Therefore, students in pedagogical sites that did not incorporate physical activity into their schedule had an increase in yearly absences, while students in pedagogical sites that had physical activity had a decrease in yearly absences. (See Figure 222.)

There are no significant relationships between the difference in referrals or grades in school by whether or not the program allowed for physical activities for students in pedagogical sites.

An independent samples t-test indicates that the improvement in classroom performance is significantly different for students in pedagogical sites that incorporated physical activity into their

schedules compared to students in pedagogical sites that did not incorporate physical activity into their schedules (t=6.688, df=150.1, p=0.000). The average improvement in classroom performance for students in sites that had physical activity was 5.26 (n=511, SD=0.91), which is more than a slight improvement. The average improvement in classroom performance for students in sites that did not have physical activity was 6.04 (n=118, SD=1.18), which is a moderate improvement. Therefore, students in pedagogical sites that did not incorporate physical activity into their schedules had greater improvement in classroom performance than students in pedagogical sites that had physical activities for students. (See Figure 223.)

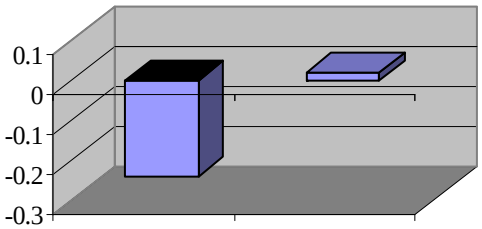
Figure 223: Imprvmnt in Classrm Perf. by Physical Activity for Students in Pedagogical Sites



Type of Curricula

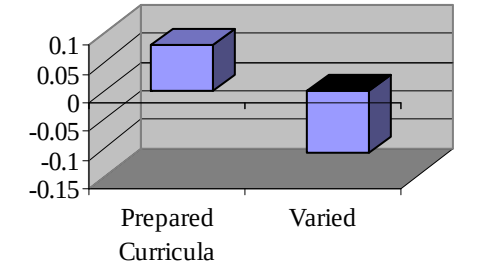
A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Math PACT scores is significantly different based upon the type of curricula used by site staff for students in pedagogical sites (F=4.031, df=2, p=0.018). The average difference in Math PACT scores for those students in sites that developed their own lesson plans was a decrease of 0.24 points (n=46, SD=0.57). This average is significantly lower than the difference in Math PACT scores of students sites where staff varied between using prepared curricula and developing their own lesson plans (mean=0.02, n=371, SD=0.60, p=0.021). Therefore, the Math PACT scores of students in pedagogical sites where staff developed their own lesson plans decreased, while the Math PACT scores of students in pedagogical sites where staff used a varied approach increased. (See Figure 224.)

Figure 224: Difference in Math PACT Scores by Type of Curricula for Students in Pedagogical Sites



A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 Science PACT scores is significantly different based upon the type of curricula used by site staff for students in pedagogical sites (F=3.713, df=2, p=0.025). The average difference in Science PACT scores for those students in sites that used prepared curricula was an increase of 0.08 points (n=130, SD=0.49). This average is significantly higher than the difference in Science PACT scores of students in which site staff varied between using prepared curricula and developing their own lesson plans (mean=-0.11, n=371, SD=0.73, p=0.019). Therefore, the Science PACT scores of students in pedagogical sites where staff used prepared curricula increased, while the Science PACT scores of students in pedagogical sites where staff used a varied approach decreased. (See Figure 225.)

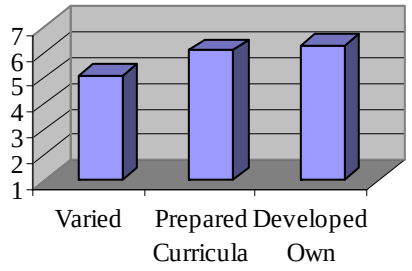
Figure 225: Difference in Science PACT Scores by Type of Curricula for Students in Pedagogical Sites



There are no significant relationships between the difference in ELA and Social Studies PACT scores, absences and referrals, or grades in school by the type of curricula for students in pedagogical sites.

A Oneway ANOVA comparison of means indicates that there was a significant difference in the improvement of classroom performance based upon type of curricula used in the after school program for students in pedagogical sites (F=111.328, df=2, p=0.000). The average improvement in classroom performance for students in sites where the staff varied between using prepared curricula and developing their own lesson plans was 5.08 (n=448, SD=0.93), which is a slight improvement. This average is significantly lower than the average improvement of students in sites where the staff used prepared curricula (mean=6.07, n=60, SD=0.52, p=0.000), which is a moderate improvement, and in sites where staff developed their own lesson plans (mean=6.29, n=121, SD=0.74, p=0.000), which is more than a moderate improvement. Therefore, the average improvement in classroom performance was lower for students in pedagogical sites where a varied approach was used than it was for students in pedagogical sites where staff used prepared curricula and in sites where staff developed their own curricula. (See Figure 226.)

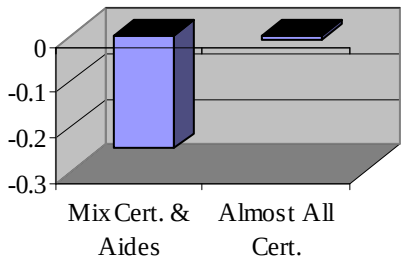
Figure 226: Imprvmnt in Classrm Perf. by Type of Curricula for Students in Pedagogical Sites



Staff Certification

An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores is significantly different based upon the level of staff certification for students in pedagogical sites (t=-2.314, df=76.9, p=0.023). The average difference in Social Studies PACT scores for students in sites that have a mix of certified teachers and aides was a decrease of 0.25 points (n=65, SD=0.79). The average difference in Social Studies PACT scores for students in sites that have almost all certified teachers was a decrease of 0.01 points (n=478, SD=0.67). Therefore, students in pedagogical sites that have a mix of certified teachers and aides had a significantly greater decrease in Social Studies PACT scores than students in pedagogical sites that have almost all certified teachers. (See Figure 227.)

Figure 227: Diff in Social Studies PACT Scores by Staff Certification for Students in Ped. Sites

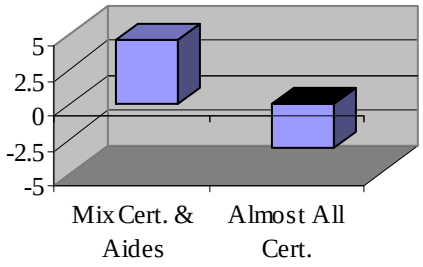


There are no significant relationships between the differences in ELA, Math, and Science PACT scores and the level of staff certification for students in pedagogical sites.

An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different based upon the level of staff certification for students in pedagogical sites (t=9.588, df=147.5, p=0.000). The average difference in yearly absences for

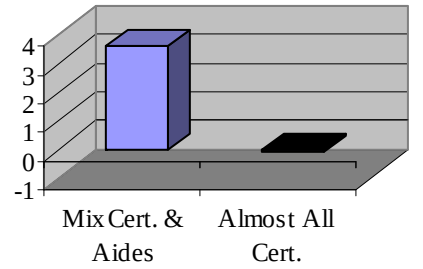
students in sites that had a mix of certified teachers and aides was an increase of 4.56 days (n=59, SD=4.74). The average difference in yearly absences for students in sites that had almost all certified teachers was a decrease of 3.13 days (n=221, SD=7.63). Therefore, students in pedagogical sites that had a mix of certified teachers and aides had an increase in absences, while the students in pedagogical sites with almost all certified teachers had a decrease in absences. (See Figure 228.)

Figure 228: Difference in Yearly Absences by Staff Certification for Students in Pedagogical Sites



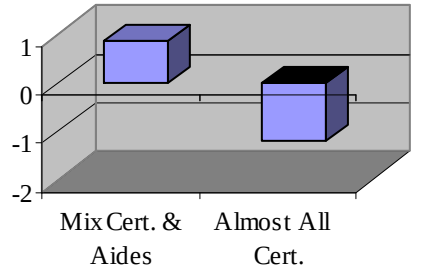
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different based upon the level of staff certification in the pedagogical sites (t=3.781, df=250, p=0.000). The average difference in yearly referrals for students in sites that had a mix of certified teachers and aides was an increase of 3.56 referrals (n=27, SD=2.85). The average difference in yearly referrals for students in sites that had almost all certified teachers was a decrease of 0.08 referrals (n=225, SD=4.89). Therefore, students in pedagogical sites that had a mix of certified teachers and aides had an increase in referrals, while the students in pedagogical sites with almost all certified teachers had a decrease in referrals. (See Figure 229.)

Figure 229: Difference in Yearly Referrals by Staff Certification for Students in Pedagogical Sites



An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different based upon the level of staff certification for students in pedagogical sites (t=2.617, df=828, p=0.009). The average difference in math grades for students in sites that had a mix of certified teachers and aides was an increase of 0.88 points (n=110, SD=8.29). The average difference in math grades for students in sites that had almost all certified teachers was a decrease of 1.22 points (n=720, SD=7.77). Therefore, students in pedagogical sites that had a mix of certified teachers and aides had an increase in math grades, while the students in pedagogical sites with almost all certified teachers had a decrease in math grades. (See Figure 230.)

Figure 230: Difference in Math Grades by Staff Certification for Students in Pedagogical Sites

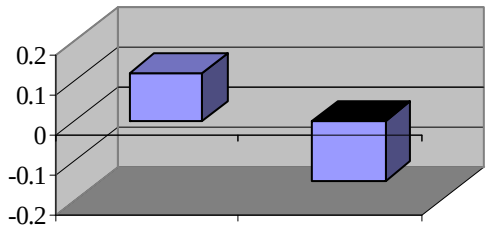


There are no significant relationships between the differences in ELA and science grades and the level of staff certification for students in pedagogical sites. There are no significant differences in classroom performance based upon the level of staff certification for students in pedagogical sites.

Number of Days Present

A Oneway ANOVA comparison of means indicates that the difference between 2005 and 2006 ELA PACT scores is significantly different based upon the number of days the students in pedagogical sites were present in the program (F=4.681, df=3, p=0.003). The average difference in ELA PACT scores for students that attended less than 30 days was an increase of 0.12 points (n=164, SD=0.60). This average is significantly higher than the difference in ELA PACT scores for students who attended 30 to 59 days (mean=-0.15, n=96, SD=0.70, p=0.003). Therefore, the ELA PACT scores for students in pedagogical sites who attended less than 30 days increased, while the ELA PACT scores for students in pedagogical sites who attended 30 to 59 days decreased. (See Figure 231.)

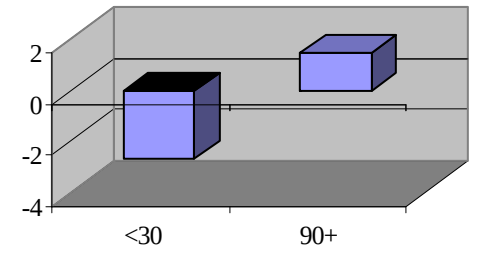
Figure 231: Difference in ELA PACT and Number of Days Present for Students in Pedagogical Sites



There are no significant relationships between the difference in Science, Math, and Social Studies PACT scores and the number of days the students were present in pedagogical sites.

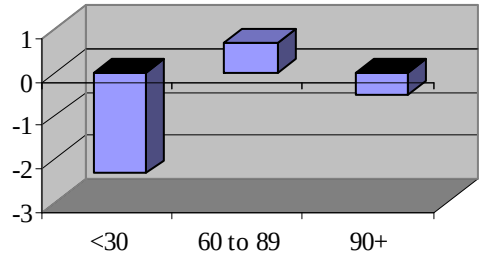
A Oneway ANOVA comparison of means indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different based upon the number of days the students in pedagogical sites were present in the program (F=2.754, df=3, p=0.043). The average difference in yearly absences for students that attended less than 30 days was a decrease of 2.70 days (n=106, SD=7.74). This average is significantly lower than the difference in yearly absences of students who attended 90 or more days (mean=1.47, n=38, SD=4.72, p=0.023). Therefore, students in pedagogical sites who attended less than 30 days had a decrease in absences, while students in pedagogical sites who attended 90 or more days had an increase in absences. (See Figure 232.)

Figure 232: Diff in Absences by Number of Days Present for Students in Pedagogical Sites



A Oneway ANOVA comparison of means indicates that the difference between first and last grading period math grades is significantly different between the number of days the students in pedagogical sites were present in the program (F=5.690, df=3, p=0.001). The average difference in math grades for students who attended less than 30 days was a decrease of 2.35 points (n=234, SD=8.41). This average is significantly lower than the difference in math grades for students who attended 60 to 89 days (mean=0.71, n=175, SD=6.85, p=0.001) and for those who attended 90 or more days (mean=-0.51, n=284, SD=7.40,

Figure 233: Difference in Math Grades by Number of Days Present for Students in Pedagogical Sites

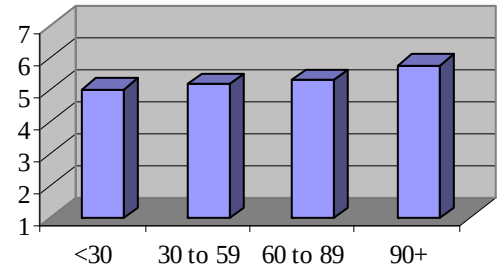


p=0.039). Therefore, the students in pedagogical sites who attended less than 30 days had a significantly greater decrease in math grades than those who attended 90 or more days, while those who attended 60 to 89 days had an increase in math grades. (See Figure 233.)

There are no significant relationships between the differences in ELA or science grades based upon the number of days the students were present in pedagogical sites.

A Oneway ANOVA comparison of means indicates that the difference in classroom performance is significantly different based upon the number of days the students in pedagogical sites were present in the program (F=19.658, df=3, p=0.000). The average improvement in classroom performance for students who attended 90 or more days was 5.74 (n=266, SD=1.01), which is just less than a moderate improvement. This average is significantly higher than the average improvement of students who attended less than 30 days (mean=5.00, n=92, SD=0.82, p=0.000), which is a slight improvement, 30 to 59 days (mean=5.16, n=122, SD=0.92, p=0.000), which is more than a slight improvement, and 60 to 89 days (mean=5.28, n=149, SD=1.01, p=0.000), which is also more than a slight improvement. Therefore, the average improvement in classroom performance was highest for students in pedagogical sites who attended 90 or more days. (See Figure 234.)

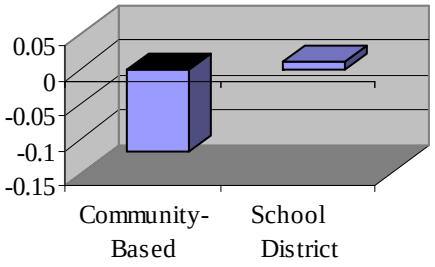
Figure 234: Improvement in Classroom Performance by Days Present for Students in Ped. Sites



Influence of Extraneous Variables

An independent samples t-test indicates that the difference between the 2005 and 2006 Math PACT scores is significantly different based upon the type of organization that sponsored the pedagogical site (t=-2.182, df=545, p=0.030). The average difference in Math PACT scores for students in sites that were sponsored by a community-based organization was a decrease of 0.12 points (n=138, SD=0.63). The average difference in Math PACT scores for students in sites that were sponsored by a school district was an increase of 0.01 points (n=409, SD=0.61). Therefore, students in pedagogical sites that were sponsored by a community-based organization had a decrease in Math PACT scores, while students in pedagogical sites that were sponsored by a school district had an increase in Math PACT scores. (See Figure 235.)

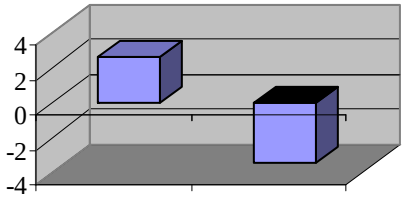
Figure 235: Diff in Math PACT Scores by Sponsoring Organization for Students in Pedagogical Sites



There are no significant relationships between the differences in ELA, Science or Social Studies PACT scores and the sponsoring organization for students in pedagogical sites.

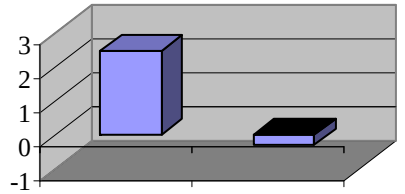
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different based upon the sponsoring organization of the pedagogical site (t=7.274, df=226.7, p=0.000). The average difference in yearly absences for students in sites that were sponsored by a community-based organization was an increase of 2.64 days (n=88, SD=5.70). The average difference in yearly absences for students in sites that were sponsored by a school district was a decrease of 3.41 days (n=192, SD=7.87). Therefore, students in pedagogical sites that were sponsored by a community-based organization had an increase in absences, while students in pedagogical sites that were sponsored by a school district had decrease in absences. (See Figure 236.)

Figure 236: Diff in Absences by Sponsoring Organization for Students in Pedagogical Sites



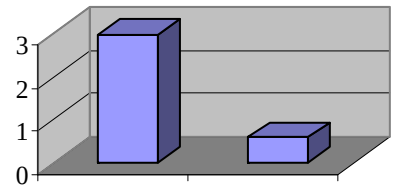
An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different based upon the sponsoring organization of the pedagogical site (t=3.913, df=250, p=0.000). The average difference in yearly referrals for students in sites that were sponsored by a community-based organization was an increase of 2.48 referrals (n=56, SD=2.85). The average difference in yearly referrals for students in sites that were sponsored by a school district was a decrease of 0.31 referrals (n=196, SD=5.12). Therefore, students in pedagogical sites that were sponsored by a community-based organization had an increase in referrals, while students in pedagogical sites that were sponsored by a school district had decrease in referrals. (See Figure 237.)

Figure 237: Diff in Referrals by Sponsoring Organization for Students in Pedagogical Sites



An independent samples t-test indicates that the difference between the first and last grading period ELA grades is significantly different based upon the sponsoring organization of the pedagogical site (t=3.214, df=283.7, p=0.001). The average difference in ELA grades for students in sites sponsored by a community-based organization was an increase of 2.97 points (n=201, SD=9.59). The average difference in ELA grades for students in sites that were sponsored by a school district was an increase of 0.59 points (n=628, SD=7.55). Therefore, students in pedagogical sites that were sponsored by a community-based organization had a greater increase in ELA grades than students in pedagogical sites that were sponsored by a school district. (See Figure 238.)

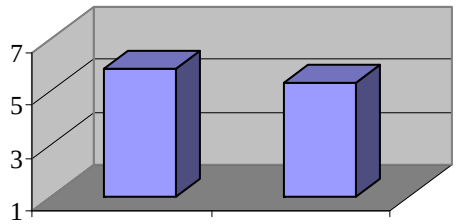
Figure 238: Diff in ELA Grades by Sponsoring Organization for Students in Pedagogical Sites



There are no significant relationships between the differences in math or science grades and the sponsoring organization for students in pedagogical sites.

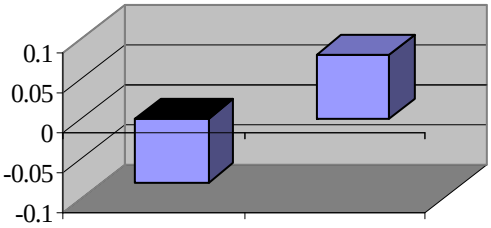
An independent samples t-test indicates that there was a significant difference in the improvement of classroom performance based upon the type of organization that sponsored the pedagogical site (t=6.570, df=173.7, p=0.000). The average improvement in classroom performance for students in sites that were sponsored by a community-based organization was 5.87 (n=89, SD=0.65), which is just less than a moderate improvement. The average improvement for students in sites that were sponsored by a school district was 5.33 (n=540, SD=1.04), which is just more than a slight improvement. Therefore, students in pedagogical sites that were sponsored by a community-based organization had a significantly greater increase in classroom performance than students in pedagogical sites that were sponsored by a school district. (See Figure 239.)

Figure 239: Imprvmnt in Classrm Performance by Sponsoring Org. for Students in Pedagogical Sites



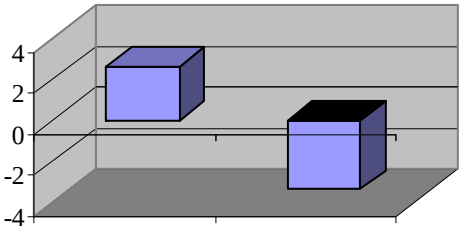
An independent samples t-test indicates that the difference between the 2005 and 2006 Math PACT scores is significantly different for students in pedagogical sites based upon the location of the site (t=-2.987, df=545, p=0.003). The average difference in Math PACT scores for students in sites that were located in a rural setting was a decrease of 0.08 points (n=357, SD=0.62). The average difference in Math PACT scores for students in sites that were located in an urban setting was an increase of 0.08 points (n=190, SD=0.61). Therefore, students in pedagogical sites that were located in a rural setting had a decrease in Math PACT scores, while students in pedagogical sites that were located in an urban setting had an increase in Math PACT scores. (See Figure 240.)

Figure 240: Diff in Math PACT Scores by Site Location for Students in Pedagogical Sites



There are no significant relationships between the differences in ELA, Science, and Social Studies PACT scores and site location for students in pedagogical sites.

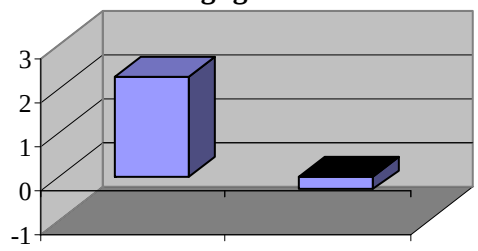
Figure 241: Difference in Absences by Site Location for Students in Pedagogical Sites



An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different for students in pedagogical sites based upon the location of the site (t=7.274, df=226.7, p=0.000). The average difference in yearly absences for students in sites that were located in a rural setting was an increase of 2.64 days (n=88, SD=5.70). The average difference in yearly absences for students in sites that were located in an urban setting was a decrease of 3.41 days (n=192, SD=7.87). Therefore, students in pedagogical sites that were located in a rural setting had an increase in yearly absences, while students in pedagogical sites that were located in an urban setting had a decrease in yearly absences. (See Figure 241.)

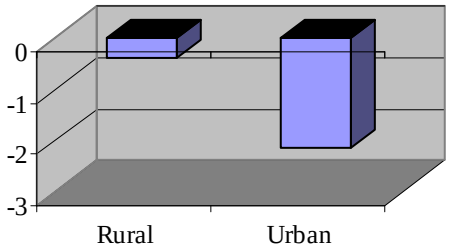
An independent indicates t-test shows that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different for students in pedagogical sites based upon the location of the site (t=3.740, df=250, p=0.000). The average difference in yearly referrals for students in sites that were located in a rural setting was an increase of 2.30 referrals (n=60, SD=2.85). The average difference in yearly referrals for students in sites that were located in an urban setting was a decrease of 0.31 referrals (n=192, SD=5.17). Therefore, students in pedagogical sites that were located in a rural setting had an increase in yearly referrals, while students in pedagogical sites that were located in an urban setting had a decrease in yearly referrals. (See Figure 242.)

Figure 242: Difference in Referrals by Site Location for Students in Pedagogical Sites



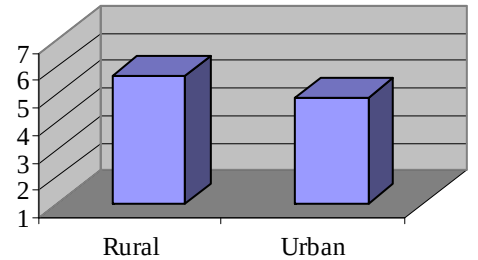
An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different for students in pedagogical sites based upon the location of the site (t=3.193, df=574.0, p=0.001). The average difference in math grades for students in sites that were located in a rural setting was a decrease of 0.39 points (n=573, SD=8.19). The average difference in math grades for students in sites that were located in an urban setting was a decrease of 2.16 points (n=257, SD=6.96). Therefore, students in pedagogical sites that were located in an urban setting had a greater decrease in math grades than students in pedagogical sites that are located in a rural setting. (See Figure 243.)

Figure 243: Difference in Math Grades by Site Location for Students in Pedagogical Sites



There are no significant relationships between the difference in ELA and science grades and site location for students in pedagogical sites.

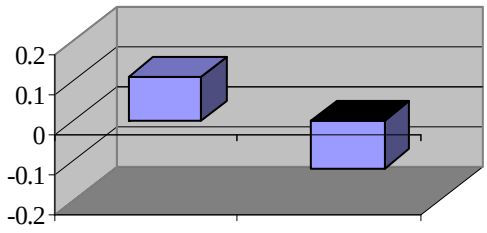
Figure 244: Imprvmnt in Classrm Performance by Site Location for Students in Pedagogical Sites



An independent samples t-test indicates that there was a significant difference in the improvement of classroom performance for students in pedagogical sites based upon the location of the site (t=10.230, df=464.9, p=0.000). The average improvement in classroom performance for students in sites that were located in a rural setting was 5.67 (n=419, SD=0.97), which is a slight to moderate improvement. The average improvement in classroom performance for students in sites that were located in an urban setting was 4.89 (n=210, SD=0.87), which is less than a slight improvement. Therefore, students in pedagogical sites that were located in a rural setting had greater average improvement in classroom performance than students in pedagogical sites located in an urban setting. (See Figure 244.)

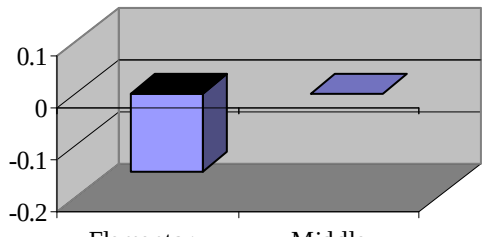
An independent samples t-test indicates that the difference between the 2005 and 2006 Math PACT scores is significantly different for elementary school students compared to middle school students in pedagogical sites (t=4.317, df=545, p=0.000). The average difference in Math PACT scores for students in elementary school was an increase of 0.11 points (n=231, SD=0.61). The average difference in Math PACT scores for students in middle school was a decrease of 0.12 points (n=316, SD=0.62). Therefore, elementary school students in pedagogical sites experienced an increase in Math PACT scores, while middle school students in pedagogical sites had a decrease in Math PACT scores. (See Figure 245.)

Figure 245: Difference in Math PACT Scores by Grade Level for Students in Pedagogical Sites



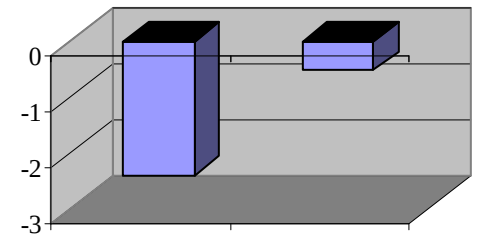
An independent samples t-test indicates that the difference between the 2005 and 2006 Science PACT scores is significantly different for elementary school students compared to middle school students in the pedagogical sites (t=-2.579, df=428.7, p=0.010). The average difference in Science PACT scores for students in elementary school was a decrease of 0.15 points (n=231, SD=0.60). The Science PACT scores for students in middle school stayed the same at 0.00 points (n=313, SD=0.60). Therefore, elementary school students in pedagogical sites experienced a decrease in Science PACT scores, while middle school students in pedagogical sites stayed the same. (See Figure 246.)

Figure 246: Difference in Science PACT Scores by Grade Level for Students in Pedagogical Sites



There are no significant relationships between the difference in ELA and Social Studies PACT scores and grade level for students in pedagogical sites.

Figure 247: Difference in Absences by Grade Level for Students in Pedagogical Sites

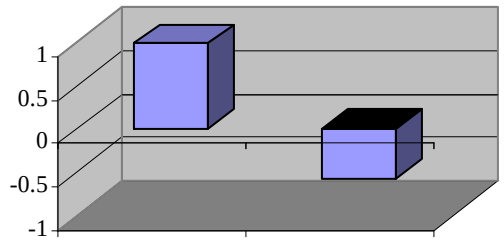


An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 absences is significantly different for elementary school students compared to middle school students in the pedagogical sites (t=-2.061, df=262.3, p=0.040). The average difference in absences for students in elementary school was a decrease of 2.39 days (n=148, SD=8.90). The average difference in absences for students in middle school was a decrease of 0.52 days (n=132, SD=6.16). Therefore, elementary school students in pedagogical sites experienced a greater decrease in absences than middle school students in pedagogical sites. (See Figure 247.)

An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 discipline referrals is significantly different for elementary school students compared to middle

school students in the pedagogical sites (t=2.540, df=250, p=0.012). The average difference in referrals for students in elementary school was an increase of 0.98 referrals (n=143, SD=4.56). The average difference in referrals for students in middle school was a decrease of 0.57 absences (n=109, SD=5.08). Therefore, elementary school students in pedagogical sites experienced an increase in referrals, while middle school students in pedagogical sites had a decrease in referrals. (See Figure 248.)

Figure 248: Difference in Referrals by Grade Level for Students in Pedagogical Sites



There are no significant relationships between the differences in grades by grade level for students in pedagogical sites.

An independent samples t-test indicates that there was a significant difference in the improvement of classroom performance for elementary school students compared to middle school students in pedagogical sites (t=-6.442, df=627, p=0.000). The average improvement in classroom performance for students in elementary school was 5.23 (n=420, SD=0.98), which is just more than a slight improvement. The average improvement in classroom performance for middle school students was 5.78 (n=209, SD=0.98), which is just less than a moderate improvement. Therefore, middle school students in pedagogical sites had greater average improvement in classroom performance than elementary school students in pedagogical sites. (See Figure 249.)

Figure 249: Imprvmnt in Classrm Performance by Grade Level for Students in Pedagogical Sites

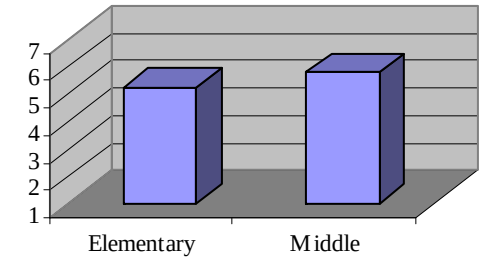
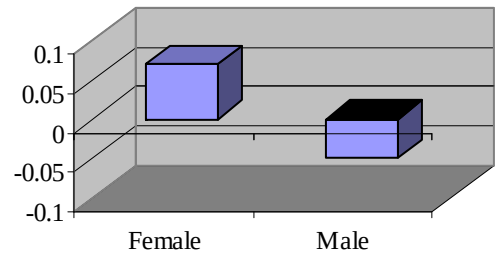


Figure 250: Difference in ELA PACT Scores by Gender for Students in Pedagogical Sites



An independent samples t-test indicates that the difference between the 2005 and 2006 ELA PACT scores is significantly different by the gender of students in the pedagogical sites (t=2.273, df=542, p=0.023). The average difference in ELA PACT scores for females was an increase of 0.07 points (n=542, SD=0.61). The average difference in ELA PACT scores for males was a decrease of 0.05 points (n=275, SD=0.60). Therefore, females in pedagogical sites experienced an increase in ELA PACT scores, while males in pedagogical sites had a decrease in ELA PACT scores. (See Figure 250.)

An independent samples t-test indicates that the difference between the 2005 and 2006 Science PACT scores is significantly different by the gender of students in the pedagogical sites (t=-3.238, df=542, p=0.001). The average difference in Science PACT scores for females was a decrease of 0.16 points (n=269, SD=0.62). The average difference in Science PACT scores for males was an increase of 0.03 points (n=275, SD=0.71). Therefore, males in pedagogical sites experienced an

increase in Science PACT scores, while females in pedagogical sites had a decrease in Science PACT scores. (See Figure 251.)

An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores is significantly different by the gender of students in the pedagogical sites (t=2.244, df=541, p=0.025). The average difference in Social Studies PACT scores for females was an increase of 0.03 points (n=268, SD=0.74). The average difference in Social Studies PACT scores for males was a decrease of 0.10 points (n=275, SD=0.62). Therefore, females in pedagogical sites experienced an increase in Social Studies PACT scores, while males in pedagogical sites had a decrease in Social Studies PACT scores. (See Figure 252.)

There are no significant relationships between the differences in Math PACT scores, absences and referrals, or grades in school by the gender of students in pedagogical sites.

An independent samples t-test indicates that there was a significant difference in the improvement of classroom performance by the gender of students in pedagogical sites (t=4.705, df=627, p=0.000). The average improvement in classroom performance for females students was 5.61 (n=286, SD=1.01), which was a slight to moderate improvement. The average improvement in classroom performance for male students was 5.24 (n=343, SD=0.98), which was more than a slight improvement. Therefore, female students in pedagogical sites had greater average improvement in classroom performance than male students in pedagogical sites. (See Figure 253.)

A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 Science PACT scores is significantly different based upon the ethnicity of the student (F=3.179, df=3, p=0.024). The average difference in Science PACT scores for Hispanic students was an increase of 0.44 points (n=16, SD=0.73). This average is significantly higher than the average difference in Science PACT scores for African American students (mean=-0.09,

Figure 251: Difference in Science PACT Scores by Gender for Students in Pedagogical Sites

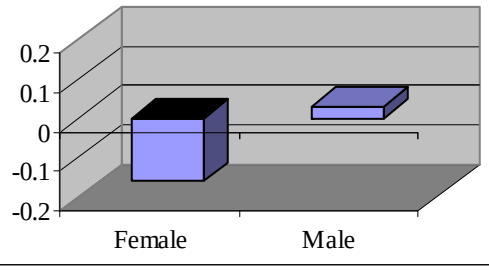


Figure 252: Difference in Social Studies PACT Scores by Gender for Students in Pedagogical Sites

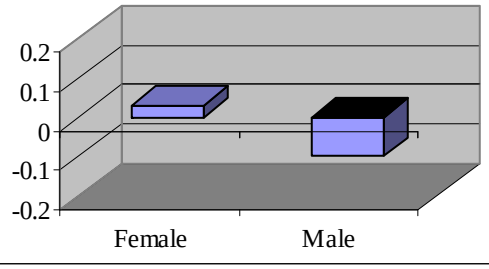


Figure 253: Improvement in Classroom Performance by Gender for Students in Pedagogical Sites

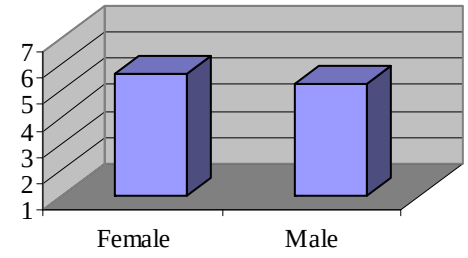
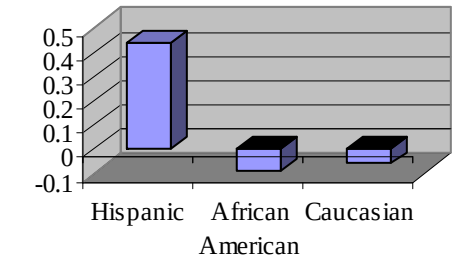


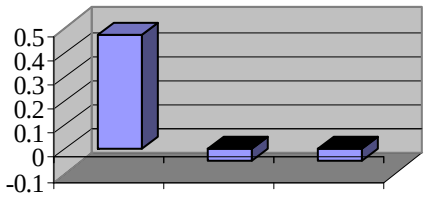
Figure 254: Difference in Science PACT Scores by Ethnicity for Students in Pedagogical Sites



n=335, SD=0.66, p=0.012) and Caucasian students (mean=-0.06, n=188, SD=0.68, p=0.024). Therefore, Hispanic students in pedagogical sites had an increase in Science PACT scores, while the Science PACT scores for African American and Caucasian students in pedagogical sites decreased. (See Figure 254.)

A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 Social Studies PACT scores is significantly different based upon the ethnicity of the student (F=3.248, df=3, p=0.022). The average difference in Social Studies PACT scores for Hispanic students was an increase of 0.47 points (n=17, SD=0.62). This average is significantly higher than the average difference in Social Studies PACT scores for African American students (mean=-0.05, n=335, SD=0.72, p=0.011) and Caucasian students (mean=-0.05, n=186, SD=0.63, p=0.013). Therefore, Hispanic students in pedagogical sites had an increase in Social Studies PACT scores, while the Social Studies PACT scores for African American and Caucasian students in pedagogical sites decreased. (See Figure 255.)

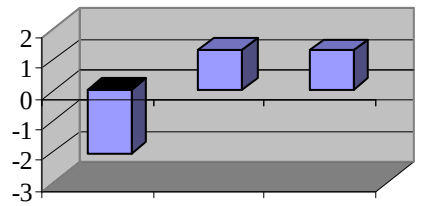
Figure 255: Difference in Social Studies PACT Scores by Ethnicity for Students in Pedagogical Sites



There are no significant relationships between the difference in ELA and Math PACT scores, absences, or referrals by ethnicity for students in pedagogical sites.

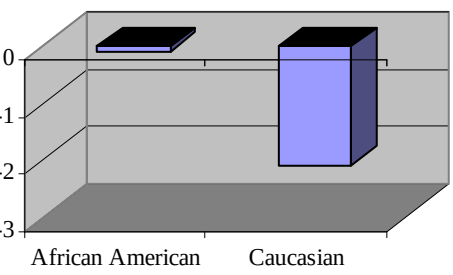
A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 ELA grades is significantly different based upon the ethnicity of the student (F=3.570, df=2, p=0.029). The average difference in ELA grades for Hispanic students was a decrease of 2.05 points (n=44, SD=7.91). This average is significantly lower than the average difference in ELA grades for African American students (mean=1.31, n=472, SD=8.14, p=0.024) and Caucasian students (mean=1.30, n=305, SD=8.06, p=0.028). Therefore, Hispanic students in pedagogical sites had a decrease in ELA grades, while the ELA grades for African American and Caucasian students in pedagogical sites increased. (See Figure 256.)

Figure 256: Difference in ELA Grades by Ethnicity for Students in Pedagogical Sites



A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 math grades is significantly different based upon the ethnicity of the student (F=7.063, df=2, p=0.001). The average difference in math grades for Caucasian students was a decrease of 2.10 points (n=305, SD=8.04). This average is significantly lower than the average difference in math grades for African American students (mean=-0.10, n=473, SD=7.72, p=0.002).

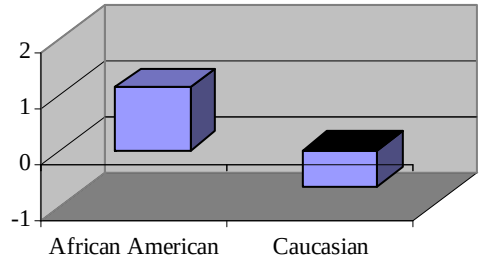
Figure 257: Difference in Math Grades and Ethnicity for Students in Pedagogical Sites



Therefore, Caucasian students in pedagogical sites experienced a greater decrease in math grades than African American students in pedagogical sites. (See Figure 257.)

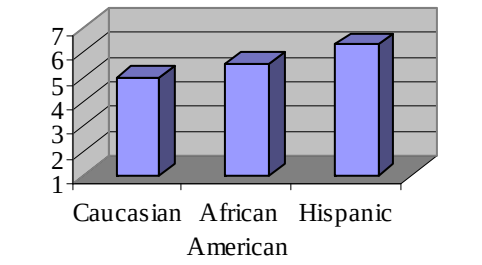
A Oneway ANOVA comparison of means indicates that the difference in 2005 and 2006 science grades is significantly different based upon the ethnicity of the student (F=3.042, df=2, p=0.04). The average difference in science grades for Caucasian students was a decrease of 0.64 points (n=304, SD=8.67). This average is significantly lower than the average difference in science grades for African American students (mean=1.13, n=472, SD=10.54, p=0.037). Therefore, Caucasian students in pedagogical sites experienced a decrease in science grades, while African American students in pedagogical sites had an increase in science grades. (See Figure 258.)

Figure 258: Difference in Science Grades by Ethnicity for Students in Pedagogical Sites



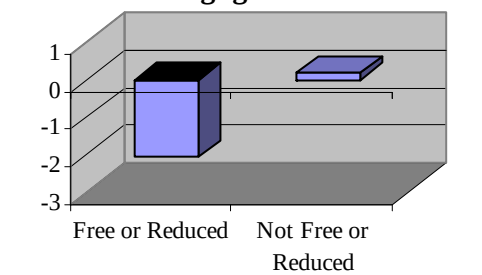
A Oneway ANOVA comparison of means indicates that there was a significant difference in classroom performance based upon the ethnicity of the student for pedagogical sites (F=38.89, df=2, p=0.000). The average improvement in classroom performance for Caucasian students was 4.98 (n=195, SD=1.07), which is a slight improvement. This average is significantly lower than the average improvement in classroom performance for African American students (mean=5.55, n=398, SD=0.91, p=0.000), which is a slight to moderate improvement, and Hispanic students (mean=6.31, n=33, SD=0.79, p=0.000), which is more than a moderate improvement. The average improvement in classroom performance for Hispanic students was also significantly higher than that of African American students (p=0.000). Therefore, the average improvement in classroom performance was greatest for Hispanic students in pedagogical sites, followed by the average improvement of African American students in pedagogical sites. Caucasian students in pedagogical sites had the smallest improvement in classroom performance. (See Figure 259.)

Figure 259: Imprvmnt in Classrm Performance by Ethnicity for Students in Pedagogical Sites



There are no significant relationships between the difference in PACT scores by the lunch status of students in pedagogical sites.

Figure 260: Difference in Absences by Lunch Status for Students in Pedagogical Sites



An independent samples t-test indicates that the difference between the 2004-2005 and 2005-2006 absences is significantly different based upon whether or not the students in the pedagogical sites received free or reduced lunch (t=2.105, df=278, p=0.036). The average difference in absences for students who did not receive free or reduced lunch was an increase of 0.19 days (n=69, SD=7.71). The average difference in absences

for students who received free or reduced lunch was a decrease of 2.07 days (n=211, SD=7.73). Therefore, students in pedagogical sites who received free or reduced lunch had a decrease in absences, while students in pedagogical sites who did not receive free or reduced lunch had an increase in absences. (See Figure 260.)

An independent samples t-test indicates that the difference between 2004-2005 and 2005-2006 discipline referrals is significantly different based upon whether or not the students in the pedagogical sites received free or reduced lunch (t=2.366, df=213.3, p=0.019). The average difference in referrals for students who did not receive free or reduced lunch was an increase of 1.20 referrals (n=54, SD=2.18). The average difference in referrals for students who received free or reduced lunch was an increase of 0.07 referrals (n=198, SD=5.32). Therefore, students in pedagogical sites who did not receive free or reduced lunch had a greater increase in absences than students in pedagogical sites who did not receive free or reduced lunch. (See Figure 261.)

An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different based upon whether or not the students in the pedagogical sites received free or reduced lunch (t=-3.473, df=828, p=0.001). The average difference in math grades for students who received free or reduced lunch was a decrease of 1.44 points (n=650, SD=7.88). The average difference in math grades for students who did not receive free or reduced lunch was an increase of 0.85 points (n=180, SD=7.59). Therefore, students in pedagogical sites who received free or reduced lunch had a decrease in math grades, while students in pedagogical sites who did not receive free or reduced lunch had an increase in math grades. (See Figure 262.)

There are no significant relationships between the difference in ELA and science grades or classroom performance by lunch status for students in pedagogical sites.

An independent samples t-test indicates that the difference between 2005 and 2006 Math PACT scores is significantly different based on the special needs status of students in pedagogical sites (t=-2.66, df=545, p=0.008). The average difference in Math PACT scores for students who are reported as having a special need was an increase of 0.14 points (n=87, SD=0.61). The average difference in Math PACT scores for students who do not have a special need was a

Figure 261: Difference in Math Grades by Lunch Status for Students in Pedagogical Sites

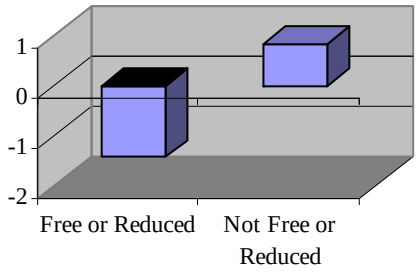


Figure 262: Difference in Referrals by Lunch Status for Students in Pedagogical Sites

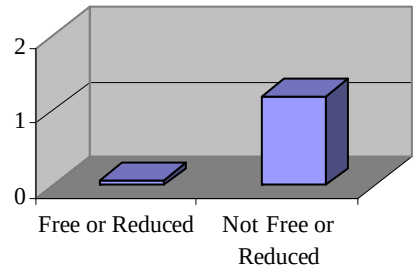
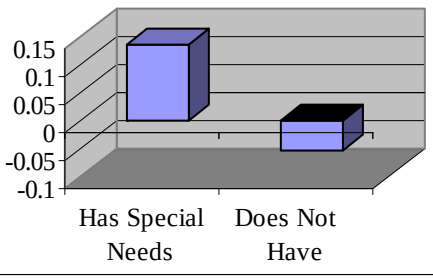


Figure 263: Diff in Math PACT Scores by Special Needs Status for Students in Pedagogical Sites

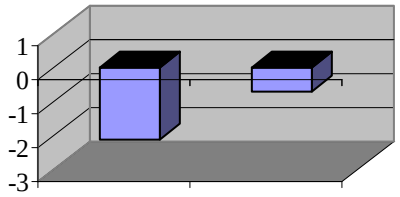


decrease of 0.05 points (n=460, SD=0.62). Therefore, students who are reported as having a special need had an increase in their Math PACT scores whereas the Math PACT scores for students who do not have a special need remained about the same. (See Figure 263.)

There are no significant differences in ELA, Science and Social Studies PACT scores, absences or referrals according to the students' special needs status.

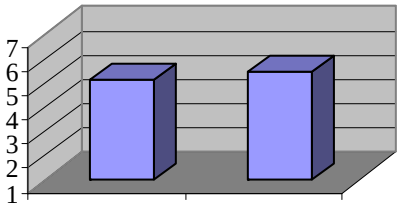
An independent samples t-test indicates that the difference between the first and last grading period math grades is significantly different for students with a special need compared to students without a special need (t=2.02, df=818, p=0.044). The average difference in math grades for students with a special need was a decrease of 2.13 points (n=149, SD=7.95). The average difference in math grades for students without a special need was a decrease of 0.69 points (n=671, SD=7.86). Therefore, students with a special need experienced a significantly greater decrease in math grades than students without a special need. (See Figure 264.)

Figure 264: Diff in Math Grades by Special Needs Status for Students in Pedagogical Sites



There are no significant differences in ELA or Science grades by special needs status.

Figure 265: Improvement in Classroom Perf by Special Needs for Students in Pedagogical Sites



An independent samples t-test indicates that there is a significant difference between classroom performance based upon special needs status (t=2.75, df=623, p=0.006). The average improvement in classroom performance for students with a special need was 5.19 (n=131, SD=0.98). The average improvement in classroom performance for students without a special need was 5.46 (n=494, SD=1.01). Therefore, the average improvement in classroom performance was significantly less for students with a special need than the average improvement in classroom performance for students without a special need. (See Figure 265.)

Comparison with Control Group

An independent samples t-test indicates that the difference between the 2005 and 2006 Math PACT scores is significantly different for students in the 21st CCLC pedagogical sites compared to students in the control group at these same schools (t=-2.925, df=680.5, p=0.004). The average difference in scores from 2005 to 2006 for the students in the 21st CCLC pedagogical sites was a decrease of 0.05 points (n=467, SD=0.62). The average difference in scores from 2005 to 2006 for the control group was a decrease of 0.14 points (n=2481, SD=0.66). Therefore, students in the 21st

CCLC pedagogical sites experienced less of a decrease in Math PACT scores than students in the control group. (See Figure 266.)

An independent samples t-test indicates that the difference between the 2005 and 2006 Social Studies PACT scores is significantly different for students in the 21st CCLC pedagogical sites compared to students in the control group at these same schools (t=--2.146, df=723.7, p=0.032). The average difference in scores from 2005 to 2006 for the students in the 21st CCLC pedagogical sites was a decrease of 0.04 points (n=465, SD=0.68). The average difference in scores from 2005 to 2006 for the control group was a decrease of 0.12 points (n=2478, SD=0.80). Therefore, students in the 21st CCLC pedagogical sites experienced less of a decrease in Social Studies PACT scores between 2005 and 2006 than students in the control group. (See Figure 267.)

There are no significant relationships between the differences in 2005 and 2006 ELA and Science PACT scores for students in the 21st CCLC pedagogical sites compared to students in the control group.

Figure 266: Math PACT Scores for 21st CCLC Pedagogical Sites and Control Group

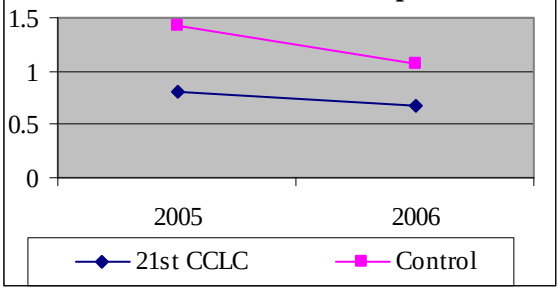
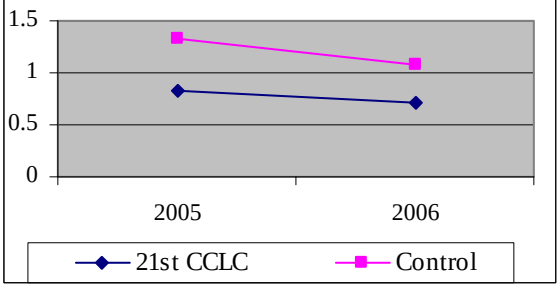


Figure 267: Social Studies PACT for 21st CCLC Pedagogical Sites and Control Group



CONCLUSIONS

The second year of the evaluation will concentrate on replicating the findings of the first year regarding the primary factor and sub-factors. If these should again account for the large degree of variance they did in the first year of the evaluation, they can be tested in a more direct manner through deliberately establishing programs established on the principles found in the primary factor and two sub-factors.

Specific conclusions from the first year of the evaluation are:

1. The South Carolina 21st CCLC was generally in conformance with the Federal objectives and performance measures. The major exception was services for adults, which were less than the Federal standard. .

2. The 21st CCLC students were successful when comparing the differences between their 2005 and 2006 PACT scores to the difference in PACT scores of the other students in their schools. On the ELA and Science PACT tests, the scores of both groups decreased slightly, but there was no statistical difference in the change between the two groups. That is, the decreases for both groups were about equal. On the Math PACT scores, the 21st CCLC students remained about the same, while the other students' scores decreased. The scores of both groups decreased on the Social Studies PACT, but the scores of the 21st Century students decreased less than those of the other students.

3. For students as a whole, the study found the following for the outcomes.

- **PACT Scores:** The average Social Studies PACT score decreased significantly from 2005 to 2006 for students in all sites. There were no significant differences in ELA, Math, or Science PACT scores between 2005 and 2006 for students in all sites.

- **Absences:** The average number of absences increased significantly from the 2004-2005 school year to the 2005-2006 school year for students in all sites.

- **Discipline Referrals:** The average number of discipline referrals increased significantly from the 2004-2005 school year to the 2005-2006 school year for students in all sites.

- **Grades:** Students' average ELA grade increased significantly from the first to the last grading period for students in all sites. Students' average math grade decreased significantly from the first to the last grading period for students in all sites. Students' average science grade increased significantly from the first to the last grading period for students in all sites.

- **Classroom Performance:** Students in all sites have significantly improved their classroom performance. Students in all the sites need to improve on some aspects of classroom performance, but not on all aspects.

4. The key factor that influences outcomes appears to be policy decisions, what the researchers named the Site Policy Primary Factor. There are three clusters of sites that were identified according to their type of policy, the Child Development Approach Sites, the Mixed Approach Sites and the Pedagogical Approach Sites. Each of these approaches has its own strengths and weaknesses. For example, the average ELA PACT score for students in sites with a child development policy decreased, while the average ELA PACT score for students in sites with pedagogical and mixed approaches increased. On the other hand, the average Social Studies PACT score for students in sites with a child development policy increased. There are literally scores of findings for each of the three approaches, which will require close attention and further study to determine their import.

5. In addition to the Primary Factor, two other sub-factors account for most of the variance among the influence on outcomes not attributable to the Primary Factor. These are the Internal Environment Sub-Factor and the Activities/Subjects Sub-Factor. Much like the Primary Factor, sites cluster into groups in these two sub-factors. Also like the Primary Factor clusters, these clusters of sites each have both positive and negative influences. .Again, considerable time and energy should be given to further study these influences and their results.

6. To achieve the goal of graduation from high school, a student must become engaged in school. The children in the 21st CCLC are prime candidates for disengagement and ultimately for dropout status. By that standard, the 21st CCLC is a great success. The 21st CCLC students, starting from a lower point, outperformed their fellow students on the PACT this year. They were overwhelmingly given strong affirmation on classroom performance by their classroom teachers. Their grades improved significantly in ELA and science (although they declined significantly in math). The only major difficulty seems to be absences and discipline referrals. These students appear to be more engaged in school, and that is what is needed to keep them there so that they will graduate.

7. The analyses contained in this report are direct relationships with the dependent variables. There is a need for analyses of secondary relationships, which are those relationships between variables that have an indirect influence on the outcomes for students by influencing the independent variables.

RECOMMENDATIONS

The independent and extraneous variables that appear to have an influence on outcomes will continue to be measured and analyzed. If the variables prove to have a significant influence, model programs and "best practice" scenarios will be developed based on these findings.

Program Implications

It is recommended that the following actions be taken to improve program activities and policies:

1. The findings regarding each cluster of sites be organized in a tabular fashion that can be used for administrative and planning purposes.
2. Following the 2006-2007 evaluation, a "model program(s)" document based on the 2005-2006 and 2006-2007 studies be developed and such programs be implemented.
3. SWS staff and SDE staff meet to determine the best course of action for moving to the stage of developing best practices.
4. The specific, detailed conclusions found in the Discussion and Summary section of the report be closely examined for actionable policy and program information.

Implications for Research

It is recommended that the following research activities be carried out:

1. SWS staff and staff of SDE meet on an established schedule during January-March, 2007 and discuss the findings of the study to develop hypotheses that can be tested based on the study findings that may be most advantageous to program change.
2. In the third through fifth years of the evaluation cycle, the model programs be a significant part of the sample of programs examined.
3. The current instruments being used for the 2006-2007 study be modified to reflect the findings of the study.
4. A chart be developed that graphically depicts the influences of the independent variables, the Primary Factor and the sub-factors on outcomes.
5. Secondary analysis be conducted on the 2005-2006 data to seek further understanding of the nuances of the Primary Factor and sub-factors.
6. The specific, detailed conclusions found in the Discussion and Summary section of the report be closely examined for further research possibilities.
7. Conduct secondary analyses of the data to determine the indirect influence of variables on the outcomes for students.

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APPENDIX 1:
"WHO WILL DROP OUT FROM SCHOOL?
KEY PREDICTORS FROM THE LITERATURE"

APPENDIX 2:
QUALITATIVE DATA INSTRUMENT

APPENDIX 3:
TEACHER SURVEY

APPENDIX 4:
QUALITATIVE DATA ANALYSIS INSTRUMENT