THE EFFECTIVENESS OF 21st CENTURY COMMUNITY LEARNING CENTERS IN THE CLARKSVILLE-MONTGOMERY COUNTY SCHOOL SYSTEM

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To the Graduate Council:

I am submitting herewith a Field Study written by Rob H. Franklin entitled "The Effectiveness of 21st Century Community Learning Centers in the Clarksville-Montgomery County School System." I have examined the final copy of this field study for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Education Specialist, with a major in Administration and Supervision.

Major Professor

We have read this Field Study
and recommend its acceptance.

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Date August 15, 2006

THE EFFECTIVENESS OF 21st CENTURY COMMUNITY LEARNING CENTERS IN THE CLARKSVILLE-MONTGOMERY COUNTY SCHOOL SYSTEM

A Field Study

Presented to the

Graduate and Research Council of

Austin Peay State University

In Partial Fulfillment

of the Requirements for the Degree of

Education Specialist

Rob H. Franklin

August 2006

DEDICATION

My wife, Denise, and son, John, have supported me in every way so I may achieve my goals. With their unwavering support and belief in me, I can do anything.

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I wish to thank Dr. Kimi Sucharski for helping me time and time again while I prepared this study. Her help and guidance were invaluable, not to mention her much appreciated sense of humor. She was a major source of encouragement!

All my professors at Austin Peay State University are exceptional role models. Of particular note is Dr. Carlette Hardin. Her dedication, professionalism, and enthusiasm are greatly appreciated.

ABSTRACT

This study determines the effectiveness of the after school program used in the 2004/2005 school year by the Clarksville-Montgomery County School System, Tennessee, in improving 3rd, 4th, and 5th grade students reading/language arts TCAP scores. The after school program studied is the federally funded 21st Century Community Learning Centers (21st CCLC).

Reading/language arts TCAP data from 850 identified at risk 3rd, 4th, and 5th grade students from nine elementary schools was evaluated. Comparisons were made between those students who fully participated (30 hours or more) to those who did not fully participate (less than 30 hours). All student data were evaluated according to the population as a whole, gender, ethnicity, socio-economic status, and inclusion in special programs.

The statistical analysis provided mixed results. A statistically significant difference did occur for some groups, but not others.

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CHAPTER I

INTRODUCTION

After-school programs fill a need in today's educational system. They provide structured and safe environments where children can improve academically and develop positive social skills. There are myriad after-school programs throughout the United States varying in size, focus, services offered, and settings.

Among the most well known is the federally funded 21st Century Community Learning Centers (21st CCLC). The 21st CCLC mainly provides academic instruction after school, but art, music, and counseling are also components of the program (Naftzger, Margolin, & Kaufman, 2005).

Statement of the Problem

In 2004/2005, Clarksville-Montgomery County School System (CMCSS) 3rd, 4th, and 5th grade students were collectively 93.8% proficient in reading/language arts as measured by the annual TCAP proficiency assessment (Tennessee Department of Education, 2005a). That score is inadequate to meet federal requirements. No Child Left

Behind (NCLB) requires 100% of students to be proficient in reading/language arts by 2013-2014. As a means to achieve the goal, CMCSS applied for, and obtained, a 21st CCLC grant to provide additional academic instruction during the non-school hours to at-risk students.

Purpose of the Study

To determine the effectiveness of the 21st CCLC after-school program as it relates to the reading/language arts TCAP proficiency scores of at-risk elementary school students in the Clarksville-Montgomery County School System.

Significance of the Study

The results of the study will assist Clarksville-Montgomery County School System decision makers in determining the effectiveness of the 21st CCLC after-school program on participating 3rd, 4th, and 5th grade students' reading/language arts TCAP proficiency scores. The decision makers can then either support further participation in the 21st CCLC, or make other commitments to improve student performance based on analytic documentation.

Research Question

Is there a significant difference between the achievement of 3rd, 4th, and 5th grade elementary school

at-risk students who attended an after-school reading/language arts programs compared to those who did not?

Hypotheses

The following null hypotheses will be tested:

1. Null Hypothesis One: There is no statistically significant difference between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program for 30 hours or more compared to those who did not as determined by TCAP proficiency scores. 3rd, 4th, and 5th grade data will be analyzed as a group then by individual grade levels.

2. Null Hypothesis Two: There is no statistically significant difference in terms of gender between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program for 30 hours or more as compared to those who did not as determined by TCAP proficiency scores.

3. Null Hypothesis Three: There is no statistically significant difference in terms of ethnicity between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program for

30 hours or more compared to those who did not as determined by TCAP proficiency scores.

4. Null Hypothesis Four: There is no statistically significant difference in terms of socio-economic status between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program for 30 hours or more compared to those who did not as determined by TCAP proficiency scores.

5. Null Hypothesis Five: There is no statistically significant difference in terms of identification for special programs between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program for 30 hours or more compared to those who did not as determined by TCAP proficiency scores.

Limitations

1. The major limitation is this study involves a limited number of schools and students in one Tennessee county.
2. This study is only generalizable in Montgomery County, Tennessee.

3. Each of the nine schools that participated in the study established individual methods of teaching and evaluation.

Assumptions

1. All after-school program teachers are certified to teach.
2. Student TCAP proficiency scores are accurate.
3. The students are performing to their highest ability levels.
4. All after-school reading/language arts programs are of equal quality.

Definitions of Terms

1. After-school reading/language arts program: An educational after-school program, which encompasses reading/language arts remediation and reading/language arts intervention (preventative).
2. Fully participated: Attendance in the 21st Century Community Learning Schools after-school program for 30 hours or more in a given school year.
3. TCAP: The Tennessee Comprehensive Assessment Program is a state achievement test developed by CTB McGraw Hill and administered to Tennessee students in grades 2-8. The test evaluates Reading,

Language Arts, Mathematics, Science and Social Studies achievement (Tennessee Department of Education, 2001a).

4. ELL: English Language Learners – "Those whose native language is other than English and whose difficulty in speaking, reading, writing, or understanding the English language is an obstacle in classrooms where English is the only language" (Tennessee Department of Education, 2005b).
5. 21st CCLC: 21st Century Community Learning Centers – The after-school program used by CMCSS.
6. At-risk students: Students who are not experiencing appropriate academic growth and achievement. Students are identified at-risk of achieving academic success utilizing several measures which include: Scoring in the bottom quintile on a standardized assessment (TCAP), Scoring 1.5 or more years below grade level on the STAR Assessment, Scoring far below Proficient/Below Proficient on the CMCSS System Benchmarks, Scoring at-risk on DIBELS, and Support Team referrals and or teacher recommendations.

7. CMCSS: Clarksville-Montgomery County School System
8. Proficient Achievement: Enough questions were answered correctly on the TCAP to meet minimum requirements in a particular category.
9. STAR Assessment: computer-adaptive assessment and diagnostic tool created by Renaissance Learning and certified as a reliable and valid tool for assessing students reading and math achievement levels by National Center on Student Progress Monitoring (Renaissance Learning, 2006).
10. DIBELS: Dynamic Measurement Group defines DIBELS as:

Dynamic Indicators of Basic Early Literacy Skills (DIBELS) are a set of standardized, individually administered measures of early literacy development. They are designed to be short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills.

The measures were developed to assess student development of phonological awareness, alphabetic understanding, accuracy and fluency reading connected text, vocabulary and

comprehension. Each measure has been thoroughly researched and demonstrated to be a reliable and valid indicator of early literacy development. When used as recommended, the results can be used to evaluate individual student development toward validated instructional objectives as well as provide feedback on effectiveness of intervention support (2006).

11. System benchmarks: According to the Clarksville-Montgomery County School System, benchmarks are formative assessments. Formative assessments are not designed to produce a grade that would be a part of a student's average for a report card. The purpose of the benchmark is to identify different performance levels among students, target instructional strategies to assist students' mastery of State Performance Indicators, and implement best practices to promote student achievement (2006).
12. Students with Section 504 Service Plans: Students whose ability to learn is substantially limited as the result of a disability.

"A student is eligible under §504 if the student:

(a) has a physical or mental impairment which substantially limits one or more major life activities;

(b) has a record of such an impairment; or

(c) is regarded as having such an impairment" (Tennessee Department of Education, 2001b).

13. Minority students: African American, Hispanic, Asian/Pacific Islander, and Native American students.
14. Majority students: Caucasian students.

CHAPTER II

REVIEW OF LITERATURE

Academic success is commonly accepted as a significant, if not the most significant, path to a successful and happy life. Unfortunately, many of America's children are at-risk of receiving an inadequate education. President Bush summarized the nature and severity of the educational problems facing the United States and its children:

> As America enters the 21st Century full of hope and promise, too many of our neediest students are being left behind. Today, nearly 70% of inner city fourth graders are unable to read at a basic level on national reading tests. Our high school seniors trail students in Cyprus and South Africa on international math tests. And nearly a third of our college freshmen find they must take a remedial course before they are able to even begin regular college level courses (Bush, 2001, p.1).

21st Century Community Learning Centers

In 1994, the federal government created the 21st Century Community Learning Centers (21st CCLC) in an effort to allow greater use of school facilities for the academic, and non-academic, development of children in disadvantaged areas. Participating schools were awarded funding to keep schools open during non-school hours. This allowed schools to provide a structured place for children to remain and grow. Before the program began, many disadvantaged children would leave school only to find themselves in unsafe settings due to high crime rates, poverty, or gang activity (James-Burdumy et al., 2005).

Congress reauthorized the program in 1998 to provide greater use by allowing recreational, as well as academic, activities in the schools. The reauthorization was a further attempt to help struggling at-risk students succeed at school and develop skills necessary to cope with various issues by providing academic assistance, non-academic programs, and counseling services (James-Burdumy et al., 2005). A stated goal was to "provide students with productive and engaging activities at times when they would otherwise be without adult supervision (e.g., before or

after school, on the weekends or during summer)" (Naftzger et al., 2005, p. 1).

Poverty

The 21st CCLC goal of providing safe places for students to engage in after-school activities is appropriate when one considers most participants are from economically disadvantaged families. For example, 66% of the middle schools that participate in the program are from highly poverty-ridden areas (James-Burdumy et al., 2005). Similarly, most after-school programs are geared toward helping students from economically disadvantaged areas and schools. Vandell, et al. (2004) found 83% of elementary school students who participated in a variety of after-school programs received free or reduced-priced lunches. The percentage of middle school students who received free or reduced-priced lunches was almost as high at 75%.

As Vandell et al. (2004) discovered, most students receiving free or reduced priced lunches were from ethnic minority backgrounds. Those students were almost exclusively from urban areas. Unfortunately, that makes it difficult to compare and contrast the effectiveness of after-school programs with students from other geographic and ethnic backgrounds, such as non-economically

disadvantaged white students from the Midwest. Vandal et al. (2004), however, studied programs in rural school districts, as well as ones in moderate and large cites. Even then, most programs studied were for children from economically disadvantaged backgrounds.

Safety

The effects of poverty, and safety, and education are connected. Students in poverty are more likely to be involved in activities that hinder the achievement of a proper education. Negative behaviors such as crime, illegal drug use, gang activity, high dropout rates, and children receiving substandard educations are already sources of concern to those studying such issues. The already risky behaviors are heightened by poverty. Compounding the already undesirable situation, most crime takes place during the hours immediately after school until 6 p.m. (Carnegie Council on Adolescent Development, 2004; Hollister, 2003).

Regardless of the type of after-school program, a common goal is to provide a safe place for children. This is true of both academically and non-academically oriented after-school programs. For example, The Manchester Youth Development Center (MYDC) is an after-school program that

provides academic and non-academic adult supervised instruction to approximately 200 kindergarten through 12th grade students. In a qualitative study, Beck (1999) attributed the success of the MYDC in part to the children being in a safe environment. The study reported children, "leave their otherwise normative stance . . .at the door" (Beck, 1999, p. 110), thus making the center conducive to learning and developing proper behavior.

Although safety is usually noted as a major rationale for a particular community having an after-school program, or as a criterion for grant eligibility, another consideration exists. As Kane (2004) stated, it is possible throughout the United States participants may attend after-school programs not out of a sense of safety or academic achievement, but simply because there is no where else for them to go after school. A presumption, as Kane (2004) stated is parents, "probably had fewer alternative after-school care options and, possibly, felt less comfortable having their children return home after school" (p. 9). In effect, this makes an after-school little more than a day-care service.

This was found true with the 21st CCLC according to Kane (2004), who noted most children in the program only

attend twice weekly. Additionally, most of the children who attend have at least one parent at home after school. The children the programs are designed to attract and help largely remain unsupervised in the after school hours (Kane, 2004).

Effectiveness

Studies are inconsistent regarding the effectiveness of after-school programs in general. Most research into 21st CCLC effectiveness is on academic achievement, but largely disregards after-school behavior. According to Naftzger et al. (2005) 17% of the 21st CCLC participants in the study experienced a decline in reading and language arts scores. Math scores declined for 19% of participants. Proportionally, more middle school students decreased their math, and reading and language arts scores compared to elementary school students.

Lane and Menzies (2002) reported all students in their study of 210 California elementary school children who participated in a multidisciplinary program improved in reading. Nance, Moore, and Lewis (1999) found middle and elementary Saint Louis school students who participated in the 21st CCLC scored higher on a math post-test than those who did not attend the program. A sign of the inconsistency

of the 21st CCLC evaluation process is evident by the James-Burdumy et al. (2005) report that seemingly contradicted the Nance et al. study by claiming, "there were no impacts of the program on reading test scores or course grades in math, English, science, or social studies" (p. 32).

By comparison, Welsh, Russell, Williams, Reisner, and White (2002) found in their study of The After-School Corporation (TASC), that students who participated in the program experienced improved math and reading scores. The growth experienced directly corresponded to the number of years the students participated in the program. Students identified as at-risk experienced the greatest gains. The study did not examine the programs impact on safety.

Research into the effectiveness of the 21st CCLC to influence students' behaviors is largely limited to how the children conduct themselves during school hours. Students in treatment groups experienced a decline in discipline concerns during school hours for those who have been in the program for two or more years. Students participating in the program for one year experienced no change in behaviors. Although the negative behaviors of students who participated in the 21st CCLC during school hours declined,

overall they reported feeling safer in the hours after school until 6 p.m. (James-Burdumy et al., 2005). Research focused on safety, and perceived safety, during the non-school hours is needed to determine if the 21st CCLC achieved the goal to provide "a safe environment after school" (James-Burdumy et al., 2005, p. 43).

Conclusions

Studies revealed mixed results for the effectiveness of after-school programs. Various programs benefited students both academically and behaviorally, while others either improved students' academic performance or their behavior. Some studies even revealed students experienced negative academic achievement and increased negative behaviors after participating in after-school programs. Studies of the 21st CCLC are equally mixed. However, with $1 billion allocated annually to the 21st CCLC program, the reported results leave its' effectiveness questionable (Hillsman, 2005).

Although improving academic achievement was the federal government's first stated goal for the 21st CCLC (U.S. Department of Education [DoE], 2003), local directors cited "providing a safe environment after school" (James-Burdumy et al., 2005, p.43) as their program's primary

goal. This was true for directors at both elementary and middle school levels (James-Burdumy et al., 2005).

Interestingly, safety was not listed as either a direct program goal or objective by the federal government. Academic and behavioral improvement, and enrichment activities were the main objectives of the 21st CCLC from its inception (DoE, 2003, p. 32). While "behavioral improvement" has a safety implication, it is a broad objective, which leaves much open to interpretation. The goal is as likely to encompass social skills, classroom discipline, and common courtesy as safety.

The emphasis local level 21st CCLC program directors place on safety evidently results from the governmental requirement that schools with high percentages of low-income families be given grant priority. At least forty percent of the families in schools that receive 21st CCLC grants must have a low-income status (DoE, 2002).

To attract students, local level 21st CCLC programs offer academically and non-academically oriented services (James-Burdumy et al., 2005, p. 44). This is consistent with federal guidelines established for the 21st CCLC program. Enrichment programs such as art, music, and recreation are required of "more than 85 percent of centers

(DoE, 2003, p. 31). This allows 21st CCLC directors the flexibility of tailoring their programs to meet the students' diverse needs and wants. Directors can tailor their programs to "provide interesting and fun activities" (James-Burdumy et al., 2005, p. 44) that will attract students, most of whom attend voluntarily.

This can hamper the academic progress of participating students, however. Although academic achievement is the federal government's first stated priority for the 21st CCLC (DoE, 2003, p. 32), homework assistance was the predominant academic assistance rendered in the centers (James-Burdumy et al., 2005). Few demands on how local 21st CCLC programs are administered allow local level directors to place homework assistance on the same priority level as actual instruction. The built-in flexibility may actually keep students from receiving maximum academic benefit.

Even with 21st CCLC programs that are academically oriented, Lane and Menzies (2002) speculated teacher skills could be partially, even significantly, responsible for poor academic and behavioral problems of participating at-risk students. Researchers seldom examine teacher variables such as training, experience, and motivation in-depth. A

more accurate analysis of the effectiveness of after-school programs would include such variables.

CHAPTER III

METHODOLOGY AND PROCEDURES

This study evaluated the effectiveness of after-school reading/language arts programs on 3rd, 4th, and 5th grade elementary school students in the Clarksville-Montgomery County School System. The school system has eighteen elementary schools, one of which is a magnet school. Of those schools, nine participated in a grant that offered after-school math and reading/language arts instruction to at-risk students. The grant was awarded through the 21st Century Community Learning Centers (21st CCLC).

Research Design

This study analyzed the 21st CCLC after-school program for 3rd, 4th, and 5th grade at-risk students in the Clarksville-Montgomery County School System. TCAP proficiency scores were utilized to examine the program's impact on 523 participating students and 327 non-participating students' academic achievement. TCAP data was then used to compare the same students to those deemed at-risk who did not participate in the program. Further comparisons were made by student ethnicity, gender, socio-

economic status, and inclusion in special services or programs as reported on the 21st CCLC 2004 Annual Performance Reports.

participants

The participants were 3rd, 4th, and 5th grade at-risk students from nine elementary schools in CMCSS. No student names were used to obtain data. Individual students were assigned numbers.

Instrument

Tennessee used the Terra-Nova test to evaluate student achievement during the 2004/2005 school year. Reliability was determined for the reading/language arts portion using the Kuder-Richardson Formula 20. Reliability was determined to very high, with a coefficient of .91 for 3rd and 4th grades, and .90 for 5th grade (CTB/McGraw-Hill, 2005).

Construct validity was determined using principal-axis common factor analysis with priors estimated as squared multiple correlations. The proportion of common variance explained by first eigenvalue for reading/language arts was .95, .97, and .96 for 3rd, 4th, and 5th grades, respectively (CTB/McGraw-Hill, 2005).

Procedure

A comparison between 523 students who participated for

thirty hours or more in the 21st CCLC to 327 students who did not was made for all 3rd, 4th, and 5th grade at-risk students. Participating and non-participating 3rd, 4th, and 5th grade at-risk student data was then analyzed by grade level. Further analysis was conducted on participating and non-participating students according to ethnicity, gender, socio-economic status, and inclusion in special programs (special education, section 504, and ELL).

TCAP proficiency scores from the 2004/2005 school year were studied to determine program effectiveness in all categories studied. 21st CCLC annual performance reports of participating schools were used to determine student ethnicity, gender, socio-economic status, and inclusion in special programs for participating and non-participating students.

Data Analysis Plan

A t-test was conducted to evaluate the achieved 2004/2005 TCAP proficiency scores of 523 participating and 327 non-participating students. Participating students are those who participated in the after-school program for thirty hours or more. The t-test was conducted utilizing data from participating and non-participating 3rd, 4th, and 5th grade students identified as at-risk of achieving

proficiency in reading. The software program StatView was used to conduct the t-test.

CHAPTER IV

DATA AND RESULTS

This chapter will explain the results of the five hypotheses stated in Chapter I of this study. This study evaluated the reading/language arts effectiveness of the 21st Century Community Learning Centers after-school program in the Clarksville-Montgomery County School System of Tennessee. Data was obtained on participating and non-participating at-risk students from the 2004/2005 school year. All data was anonymous.

Study Population

The data for this study was obtained from 850 3rd, 4th, and 5th grade at-risk students who attended nine elementary schools in the Clarksville-Montgomery County School System during the 2004/2005 school year. Table 1 shows the complete study population demographics.

Null Hypothesis One

Null Hypothesis One: There is no statistically significant difference between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school

reading/language arts program compared to those who did not as determined by TCAP proficiency scores.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating at-risk students in 3rd, 4th, and 5th grades. Table 1.1 shows the results of the comparison.

Table 1.1

Unpaired t-Test for 3rd – 5th Reading/Language Arts

Variable	N	Mean	df	t	p
Participated	523	2.033	848	2.288	.0224
Did Not Participate	327	1.911			

There is a statistically significant difference between the groups; therefore, this portion of Null Hypothesis One is rejected.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating at-risk students in 3rd grade. Table 1.2 shows the results of the comparison.

Table 1.2

Unpaired t-Test Reading/Language Arts 3rd Grade

Variable	N	Mean	df	t	p
Participated	210	1.977			
Did Not Participate	135	1.891	343	2.325	.0207

There is a statistically significant difference between the groups; therefore, this portion of Null Hypothesis One is rejected.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating at-risk students in 4th grade. Table 1.3 shows the results of the comparison.

Table 1.3

Unpaired t-Test Reading/Language Arts 4th Grade

Variable	N	Mean	df	t	p
Participated	162	2.032			
Did Not Participate	92	1.929	252	2.750	.0064

There is a statistically significant difference between the groups; therefore, this portion of Null Hypothesis One is rejected.

A t-test was conducted to determine if a statistically significant difference between the achievement of

participating and non-participating at-risk students in 5th grade. Table 1.4 shows the results of the comparison.

Table 1.4

Unpaired t-Test Reading/Language Arts 5th Grade

Variable	N	Mean	df	t	P
Participated	151	2.112			
Did Not Participate	100	1.919	249	1.151	.2510

There is no statistically significant difference between the groups; therefore, this portion of Null Hypothesis One is accepted.

Null Hypothesis Two

Null Hypothesis Two: There is no statistically significant difference between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program compared to those who did not in terms of gender as determined by TCAP proficiency scores.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating male at-risk students in 3rd, 4th, and 5th grades. Table 2.1 shows the results of the comparison.

Table 2.1

Unpaired t-Test Reading/Language Arts 3rd – 5th Males

Variable	N	Mean	df	t	P
Participated	311	1.965			
Did Not Participate	199	1.917	508	1.852	.0646

There is no statistically significant difference between the groups; therefore, this portion of Null Hypothesis Two is accepted.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating female at-risk students in 3rd, 4th, and 5th grades. Table 2.2 shows the results of the comparison.

Table 2.2

Unpaired t-Test Reading/Language Arts 3rd – 5th Females

Variable	N	Mean	df	t	P
Participated	212	2.136	338	1.852	.0648
Did Not Participate	128	1.903			

There is no statistically significant difference between the groups; therefore, this portion of Null Hypothesis Two is accepted.

Null Hypothesis Three

Null Hypothesis Three: There is no statistically significant difference between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program compared to those who did not in terms of ethnicity as determined by TCAP proficiency scores.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating majority at-risk students in 3rd, 4th, and 5th grades. Table 3.1 shows the results of the comparison.

Table 3.1

Unpaired t-Test Reading/Language Arts Majority 3rd – 5th

Variable	N	Mean	Df	t	p
Participated	303	2.066	500	1.890	.0594
Did Not Participate	199	1.905			

There is no statistically significant difference between the groups; therefore, this portion of Null Hypothesis Three is accepted.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating minority at-risk

students in 3rd, 4th, and 5th grades. Table 3.2 shows the results of the comparison.

Table 3.2

Unpaired t-Test Reading/Language Arts Minority 3rd – 5th

Variable	N	Mean	Df	t	p
Participated	220	1.986			
Did Not Participate	132	1.921	346	1.718	.0868

There is no statistically significant difference between the groups; therefore, this portion of Null Hypothesis Three is accepted.

Null Hypothesis Four

Null Hypothesis Four: There is no statistically significant difference between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program compared to those who did not in terms of socio-economic status as determined by TCAP proficiency scores.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating low socio-economic status at-risk students in 3rd, 4th, and 5th grades. Table 4.1 shows the results of the comparison.

Table 4.1

Unpaired t-Test 3rd – 5th Reading/Language Arts for Low SES

Variable	N	Mean	df	t	p
Participated	223	1.966			
Did Not Participate	144	1.873	365	2.560	.0109

There is a statistically significant difference between the groups; therefore, this portion of Null Hypothesis Four is rejected.

Null Hypothesis Five

Null Hypothesis Five: There is no statistically significant difference between the achievement of 3rd, 4th, and 5th grade at-risk students who attended an after-school reading/language arts program compared to those who did not in terms of identification for special programs as determined by TCAP proficiency scores.

A t-test was conducted to determine if a statistically significant difference between the achievement of participating and non-participating at-risk students in 3rd, 4th, and 5th grades who were included in special programs (special education, ELL, and Section 504). Table 5.1 shows the results of the comparison.

Table 5.1

Unpaired t-Test Reading/Language Arts 3rd – 5th Special Programs

Variable	N	Mean	df	t	p
Participated	58	2.117	84	.518	.6058
Did Not Participate	44	1.846			

There is no statistically significant difference between the groups; therefore, this portion of Null Hypothesis Five is accepted.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Five null hypotheses were tested to determine the effectiveness of 21st Century Community Learning Centers in the Clarksville-Montgomery County School System. The 2004/2005 school year was chosen for the study because the data was recent and in great enough detail to conduct an adequate analysis.

Data of participating and non-participating 3rd, 4th, and 5th grade at-risk students from nine CMCSS elementary schools was analyzed to determine if a statistically significant difference existed between the two groups. Participating and non-participating 3rd, 4th, and 5th grade students were then compared according to gender, ethnicity, socio-economic status, and inclusion in special programs. T-tests were used for those analyses.

Five hypotheses were tested to answer the research question: Is there a significant difference between the achievement of 3rd, 4th, and 5th grade elementary school at-risk students who attended an after-school

reading/language arts program. The Clarksville-Montgomery County School System's after-school reading/language arts program was used to conduct the research.

Discussion

CMCSS focuses its 21st CCLC after-school program on academics. Students receive instruction in reading and homework assistance by certified teachers. In some participating CMCSS schools, aides and volunteers render assistance as the teachers deem necessary, and under their supervision.

In contrast to the CMCSS approach, most 21st CCLC programs offer homework assistance as the primary source of academic instruction (James-Burdumy et al., 2005). For example, homework assistance is offered in 100% of the centers, but only 87% give reading instruction (Banpuri, 2005). Although homework is the primary means of academic instruction, it does allow the centers to meet federal requirements (Dynarski et al., 2004). This difference if focus makes it difficult to compare the CMCSS program to others studied.

Conclusions

The results of this study were mixed. A significant difference did occur for 3rd – 5th grade students as a

whole, 3rd grade students, 4th grade students, and low socio-economic status students. However, there was not a significant difference for 5th grade students, 3rd – 5th grade males and females, majority and minority students, and students who were included in special programs. Only hypothesis four proved false in its entirety.

A closer examination revealed the academically based CMCSS program did benefit participating students. Participating students scored higher on reading/language arts TCAP proficiency tests than those who did not participate, in all groups studied. This was inconsistent with the contention of James-Burdumy et al. (2005), who concluded participants were "no more likely to have higher academic achievement" (Abstract section, vii) than non-participants.

Although the means were higher for 5th grade students, 3rd – 5th grade males and females, majority and minority students, and students who were included in special programs, the hypotheses were accepted. A more sophisticated statistical analysis might have found significance.

It is worthy of note that although James-Burdumy et al. (2005) found participating males decreased their

reading test scores, participating male students in the CMCSS program outperformed non-participating males.

Similarly, participating female CMCSS students experienced higher test scores those who did not participate. This is consistent with results of female participants as studied by James-Burdumy et al. (2005).

Minority students experienced higher TCAP proficiency test scores over those who did not participate. While the test accepts the null hypothesis, it does not take into account ethnicity by population studied: African American, Hispanic, Asian/Pacific Islander, and Native American. African American students in the study population outnumbered all other minority groups combined by 304 to 48.

Research is limited on the effectiveness of 21st CCLC's on Hispanic, Asian/Pacific Islander, and Native American elementary school students. African American and Hispanic students are studied most frequently, along with Caucasians. African American students significantly outnumbered Hispanic students in this study. The total Hispanic population consisted of only 30 students, with only 19 participating fully.

James-Burdumy et al. (2005) found participating Caucasian students were more likely to experience lower reading test scores than participating African American or Hispanic students, contrary to the results of this study.

If evaluated separately, participating African American students in the CMCSS program scored lower than participating Caucasian students. Participating African American students also outperformed non-participating African American students.

Studies of 21st CCLC students included in special programs are a subgroup lacking substantial research. However, this study shows students who participated improved their reading/language arts scores higher on the TCAP proficiency test than their counterparts who did not participate.

Recommendations

The analysis of data supports the following recommendations:

1. Clarksville-Montgomery County School System should continue to offer the program.
2. All at-risk students participate in the program.
3. A more rigorous analysis should be undertaken using more powerful statistical procedure.

4. From this study, it is difficult to make any programmatic changes, but the program may lend itself to changes based on future analysis.
5. A goal of each group experiencing equal proficiency scores should be established. All efforts should be made to reach that goal.

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APPENDICES

APPENDIX A

CMCSS Approval for Research

Clarksville Montgomery County SCHOOL SYSTEM

Sallie Armstrong
Curriculum & Instruction Director

Board of Education 621 Gracey Avenue Clarksville, Tennessee 37040
931-920-7819 Fax: 931-920-9819 email: sallie.armstrong@cmcss.net

February 20, 2006

Mr. Rob Franklin
3183 Glenbrooke Drive
Clarksville, TN 37043

Dear Mr. Franklin:

Your research, survey, and/or research project proposal entitled, "The Effectiveness of the 21st Century Community Learning Centers in the Clarksville-Montgomery County School System" has been approved by the research committee. The date of approval was February 17, 2006.

Now that you have approval from the research committee, you may contact the principal(s) for approval. The principal(s) has the final authority and responsibility for approving or disapproving research conducted in their building.

Please read the Research Policy and Procedures Handbook for all information concerning research in Clarksville-Montgomery County Schools.

If you have questions, please call my office at (931) 920-7819.

Sincerely,

Sallie Armstrong

Sallie Armstrong
Director of Curriculum and Instruction

SA/ph

APPENDIX B

APSU Approval for Study

Austin Peay
State University

College of Graduate Studies

March 24, 2006

Rob Franklin
3183 Glennbrooke Drive
Clarksville, TN 37043

RE: Your application regarding study number 06-011: The Effectiveness of 21st Century Learning Centers in the Clarksville-Montgomery County School System

Dear Mr. Franklin:

Thank you for your recent submission. We appreciate your cooperation with the human research review process. I have reviewed your request for expedited approval of the new study listed above. This type of stud qualifies for expedited review under FDA and NIH (Office for Protection from Research Risks) regulations.

Congratulations! This is to confirm that I have approved your application through one calendar year. The consent form submitted with your application is approved. This approval is subject to APSU Policies and Procedures governing human subject research. The full IRB will still review this protocol and reserves the rig to withdraw expedited approval if unresolved issues are raised during their review.

You are granted permission to conduct your study as described in your application effective immediately. Th study is subject to continuing review on or before March 24, 2007, unless closed before that date. Enclosed please find the forms to report when your study has been completed and the form to request an annual review a continuing study. Please submit the appropriate form prior to March 24, 2007.

Please note that any changes to the study as approved must be promptly reported and approved. Some chang may be approved by expedited review; others require full board review. If you have any questions or require further information, contact me at (221-7415; fax 221-7641; email pinderc@apsu.edu).
Again, thank you for your cooperation with the APSU IRB and the human research review process. Best wis for a successful study!

Sincerely,

Charles A. Pinder

Charles A. Pinder, Ph.D.
Chair, Austin Peay Institutional Review Board
Cc: Dr. Carlette Hardin

VITA

VITA

Rob Franklin was born in Dallas, Texas on April 1, 1958. He graduated from Rockwall High School, Rockwall, Texas, in 1976. He obtained his bachelor's degree from East Texas State University in 1980. After completing his undergraduate degree, he joined the army and became an officer and pilot. He served in the army for 11 years. Upon separating from the army, he moved to Gainesville, Texas, where he began his career in education as a special education teacher through the Texas Alternative Certification Program. He obtained his Master's degree in School Counseling through the University of North Texas in 2000. In 2006, he obtained his Educational Specialist degree in Administration and Supervision from Austin Peay State University. He is currently a school counselor at Woodlawn Elementary School, Woodlawn, Tennessee.