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# AN INVESTIGATION OF THE IMPACT OF EARLY INTERVENTION & THE C.H.A.M.P. /GEAR-UP PROGRAM AT ROWAN UNIVERSITY

by

Thomas A. Cruz-Soto Jr.

#### A Thesis

Submitted in partial fulfillment of the requirements of the Master of Higher Education Administration

of The Graduate School at Rowan University May 2004

Approved by		
	Professor	
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#### ABSTRACT

Thomas A. Cruz-Soto Jr.
An Investigation of the Impacts of Early Intervention and the C.H.A.M.P. / GEAR-UP Program at Rowan University 2003/04

Dr. Burton Sisco Masters of Arts in Higher Education Administration

The purpose of this study was to investigate the impact of early intervention / precollege programs. The study sought to determine if there was any significant information regarding the impacts of early intervention / pre-college programs on target populations. The study involved 92 conveniently selected students from Cooper's Poynt Family School and Woodrow Wilson High School, located in Camden, New Jersey. The primary focus of the study was the C.H.A.M.P./GEAR-UP Program and its effectiveness on selected youth. The data collection instruments included a 15-question survey and scores from a Pineland ecology pre & post-test. This self designed survey was based upon a national GEAR-UP Program survey that is used nationally on an annual basis. The pre / post-test were produced by the C.H.A.M.P. Program and are used during the six-week summer sessions to identify student's knowledge base in math, reading, and environmental science.

Out of 120 surveys that were distributed, 92 were returned by mail, for a response rate of 77%. The results of the survey showed that there were significant impacts for students that joined the C.H.A.M.P./GEAR-UP Program. Attitudes and opinions regarding the program's services and influences towards college, ranged in agreement between 63% to 89% for the early intervention program. The study concluded that generally students who participated in the C.H.A.M.P./GEAR-UP Program and respond responded to the survey enjoyed their experiences, improved their academic skills, and rated highly the effectiveness of the program.

#### ACKNOWLEDGMENT

I would like to thank all of my family and friends who have supported me and helped me to achieve great things. I also would like to thank those who thought less of me, for keeping me motivated.

I would also like to thank the Rowan University C.H.A.M.P./GEAR-UP Staff at Camden, New Jersey for molding my educational and professional career.

In addition, thanks to Mr. Jim Summers for his time and patience in providing advice and suggestions regarding the completion of my thesis.

Finally, I would like to thank, Dr. Burton Sisco for challenging me and preparing me for the higher education workforce. Your patience and understanding is greatly appreciated....Thank you

I have lived a wonderful life and I thank god everyday.

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#### CHAPTER ONE

#### INTRODUCTION .

Early intervention programs help youth learn the importance of a college education at an early age. I know because at a very young age, I was exposed to several programs that inspired me to want to do more with my life. I am convinced that my participation in an early intervention program kept me away from drugs and violence.

Growing up in a large family of 10 and living in the City of Camden, New Jersey presented many obstacles. I had to grow up quick and take advantage of any positive opportunities that came my way. In elementary school, there was an advance placement program for students thought to be academically gifted. This program was called "The Academy East Program" and it surrounded me with peers that were all academically talented.

I was actually placed into the group as an experiment along with five other youth. The study sought to determine if the surroundings of a particular group of academically at-risk youth were inter-mixed with intellectually gifted children, would this have an effect on the experimental group's (at-risk youth's) test scores, overall grades and improve attitudes toward school.

My grades rose within the first two years of the program from below average
(D) and (F) to above average (B) to outstanding (A). If it had not been for the
"Academy East Program", I probably would have been placed into an alternative

school and obtained a high school diploma with a workforce trade, but nothing more. In most alternative schools, the institutions are juvenile homes that teach the basics to help students learn life and work skills that leads to some type of minimum wage living. Had this happened to me, I would not have attended college and my career options would have been severely limited. Fortunately, through my participation in the early intervention program, I had great opportunities ahead in my future.

I graduated from elementary school and the middle school I attended had its own academy east program, so the transition to further schooling was smooth. I adapted well and continued to excel. Simultaneously, my father became deathly ill through the abuse of alcohol and drugs. He was diagnosed with severe brain tumors that were later removed. However, the surgery performed to remove the tumors threatened his life and there was a 50-50 chance that he would not make it. I was devastated and tried to cope. Dealing with school and not knowing if my father was going to live or die was one of the most dramatic experiences in my life. I fell into a deep depression and my grades dropped.

The Vice-Principal of East Camden Middle School tried to intervene to find out what was wrong. I chose not to share any information with anyone. So again, I was selected for another program known as Network 3#, which was an anti-drug program for youth. The program targeted at-risk youth that may have been exposed to or knew of someone abusing drugs and alcohol. The goal of the program was to teach at-risk youth the harmful effects of drug abuse in hopes of saving future lives.

I was fascinated by the program and became the president of the East Camden Middle Chapter. The program taught me about the harmful effects of drugs and

perhaps most significantly, how to deal with family and close friends who may have had a problem. My grades began to improve and my father recovered from his surgery. I was back on track and ready to begin high school.

In high school, I became involved in a pre-college program known as C.H.A.M.P., or Creating Higher Aspirations and Motivations Project. The goal of the program was to help students of inner-city backgrounds to become interested in attending college. The program provided tutoring in math, reading, and science. In addition, C.H.A.M.P. hosted numerous college tours and offered a high quality S.A.T. review course. The majority of students who participated in the course for six to eight weeks increased their scores by 200 points. Also, C.H.A.M.P. assisted participants with the college application and financial aid process, all for free. I figured there was nothing to lose and everything to gain. After four years of being an active member in the program, I applied to and was accepted by Muhlenberg College in Allentown, Pennsylvania.

I graduated in 1998, and worked for about two years, until I returned to New Jersey. Subsequently, I was hired to work for C.H.A.M.P. as an academic counselor. Immediately, after being hired I took my Graduate Record Exam (GRE) and enrolled in graduate school to pursue a degree in higher education administration.

Early intervention programs have personally assisted me throughout my life. I am sure I would not be alive today without the support that I received from numerous individuals who helped make my goals and aspirations attainable.

# Background of the Problem

Colleges and universities are actively recruiting diverse students. Post-secondary education has become increasingly important as a means of ensuring a successful place in today's workforce. Minority students, specifically black and Hispanic youth, have historically been less likely to obtain a college education (Jurich & Estes, 2000).

Pre-college programs expose participants to colleges and universities via field trips and weekend tours. In addition, academic and personal counseling assists participants in striving to attend college. Many would likely not realize the goal of attending college without the assistance of early intervention programs. This coupled with financial aid and scholarship information provided the means of participating in post-secondary education.

# Significance of the Problem

Research on the effectiveness of pre-college/early intervention programs is lacking. A review of literature indicates that programs like C.H.A.M.P./GEAR-UP and Upward Bound make significant impacts on the academic lives of young people. Continuing research must take place to determine what programs work best and should be offered on a broader level. The impact of early intervention programs is an issue needing more attention from policy makers at the state and federal government levels.

# Purpose of Study

The purpose of the study was to explore the impact of selected early intervention programs on past and present participants. Of particular focus was the C.H.A.M.P./GEAR-UP Program and its impact on participants.

# **Assumptions and Limitations**

Kezar (2001) believes that intervention as early as the sixth grade is essential in preparing adolescents for success in higher education. Other researchers like Martin (2002) feel that students that enroll in college are gifted from the beginning and therefore would attend college with or without the help of any particular program:

The limitations that may affect the study could be the study size, available research on the topic, cooperation from targeted school, and parents and students. In addition, researcher bias and truthfulness of participants could alter the results of study.

#### **Definition of Terms**

Minority: A term used to describe Hispanic and African American participants, grades seventh through twelfth in Camden, New Jersey.

Disadvantage/At-Risk Youth: Hispanics and African Americans that have been deprived of financial, educational, and societal resources that hinder their overall success. These youth are residents of Camden, New Jersey from two targeted schools: Woodrow Wilson High School and Cooper's Poynt Family School.

Pre-College & Early Intervention Programs: Non profit organizations that assist youth in considering degrees in higher education, beginning in the sixth grade.

C.H.A.M.P.: Creating Higher Aspirations and Motivations Project.

C.H.A.M.P. is a pre-college program housed at the Camden Campus of Rowan

University, serving 250 seventh through twelfth grade students from Camden City,

Millville, Vineland, and Bridgeton Public Schools.

GEAR-UP: Gaining Early Awareness and Readiness for Undergraduate

Programs. Refers to a national grant program created by U.S. Representative Chaka

Fattah, D-Pa., to assist and / or create early intervention programs through the United

States for disadvantage inner-city youth. The GEAR-UP Program was signed into

public law by President Bill Clinton in 1998.

G.E.P.A.: Grade Eight Proficiency Assessment. Standardized assessment test used to determine levels of proficiency in math, reading, and science in New Jersey public schools. The test is administered in eighth grade.

H.S.P.A.: High School Proficiency Assessment. Standardized exam used to measure student academic achievement and required for graduation of New Jersey high schools. The exam is normally administered in eleventh and twelfth grades.

S.A.T.: Scholastic Aptitude Test. Standardized exam used as entrance tool in many colleges and universities across the United States.

#### **Research Questions**

The following research questions guided the study:

Research Question 1: What impact does the C.H.A.M.P./GEAR-UP Program have on selected participant's academic achievement?

Research Question 2: What are the attitudes and opinions of the selected students and parents of the program regarding the services provided by C.H.A.M.P./GEAR-UP?

Research Question 3: What are the impacts of C.H.A.M.P./GEAR-UP on selected participant's college choice and application process?

# Organization of Remaining Chapters

Chapter two of the research study details the current literature and scholarly findings related to the effectiveness of early intervention programs. Chapter three discusses the design of the study. Namely, the chapter describes the procedures used in the study, the subjects involved in the research, descriptions of the data collecting instruments, and how data were analyzed. Chapter four presents the findings based upon the research questions introduced in chapter one. Finally, Chapter five provides an overall summary of the study, along with a synopsis of the findings, discussions, conclusions and recommendations for further research.

#### **CHAPTER TWO**

#### REVIEW OF RELEVANT LITERATURE

Although early intervention programs may intuitively sound like a good way to increase college attendance, it is important to test this assumption with research and evaluation. Kezar (2001), states that there are two types of research, which are conducted on early intervention programs; program evaluations and national studies. Unfortunately, updated research on pre-college programs are limited. This is because many of the programs are relatively new and evaluation results are not available in scholarly venues such as journals and monographs. In fact, only the largest of all early intervention programs, the Upward Bound Program, has received much attention. A national study for this program is currently in progress and should be available in 2005.

Kezar (2001) believes that research on early intervention programs has been hindered by several factors. These factors include lack of funding, small size of the program, and organization diversity with respect to goals, services, eligibility criteria, and types of sponsors. Consequently, little or no reliable data related to pre-college outcomes exist and variations in program characteristics make it difficult to generalize research results.

Kezar (2001) feels that participation in pre-college programs can substantially enhance the ability of disadvantaged students to attend college by influencing many of them with the factors that promote college enrollment. The author explains that the

most significant barriers to the pursuit of post-secondary education are the inability of students to imagine themselves in college. Kezar believes that early intervention programs excel at removing those barriers

#### **Upward Bound Program**

In the Upward Bound Program it has been found that the project has a positive effect on the number of advance placement courses that a student completes (Myers & Schirm, 1999). Upward Bound students tend to take more science, math, English, foreign language, and social studies courses than any other students not enrolled in the program (Kezar, 2001). The belief is that students that are recommended to enroll in more rigorous courses work at earlier ages will be better prepared, at least academically, for college (Myers & Schirm, 1999).

According to Myers and Schirm (1999), Upward Bound places heavy emphasis on preparing students for college entrance examinations. However, the literature suggests that there is minimal evidence about the affects on the scores of the students on these standardized exams. Based on a national study reported in 1990, 73% of the high school senior participants that were active in the program went on to college.

# Pre-college Engineering Programs

The Detroit Area Pre-college Engineering Program (DAPCEP) is a model-engineering program that serves young males. The DAPCEP program was started 23 years ago in Michigan. Hill (2000), states that the program prepares students for careers in the fields of math, science, and engineering. According to the organization

President, Arthur Merriweather Jr., "The curriculum gives students the skills, experience, and confidence to find rewarding careers" (Hill, 2000, p.3).

Students enrolled in the program participate in intense courses, including physics, chemistry, laboratory science, technical writing, and calculus. In addition, students are also exposed to chemical, electrical, civil, and mechanical engineering. President Merriweather goes on to mention that "We succeed in producing high-achieving students with the wherewithal and know how to apply concepts to experiments" (Hill, 2000, p.7).

According to Mercer (2002), the DAPCEP Program has grown from teaching 250 students in 1976, to more than 6,000 in 2002. The group is revolutionary in giving young male minorities the wherewithal to become future engineers, scientists, and mathematicians. The organization aspires to expand its career exploration efforts to the K-3 grades which are expected to continue the legacy of the program for years to come (Mercer, 2002).

Consequently, internal research initiated by DAPCEP, indicates that 90% of all students go on to college. Sixty-two percent o these students pursue technology degrees compared to 33% nationwide. Finally, 72% percent of the program's students who graduated from college were awarded technology degrees in 2002 (Mercer, 2002).

# Boys and Girls Club of America

The Boys and Girls Club of America (B&GCA) is a positive example of an organization that has invested in the education field. The organization was founded in 1906 and has more than 2,000 facilities in all 50 states. Jurich and Estes (2000),

discuss that nearly 400 of these programs are in public housing areas. The organization's mission is to form healthy partnerships between school-aged children of all backgrounds (Jurich & Estes, 2000). The program serves approximately three million children from economically disadvantage areas across the United States.

The Boys & Girls Club averages a 60 % to 40% ratio of male to female. The ethnic estimates are 63.5% African-American, 27.5% Latino, 12% white, and 7.8 % other. For both male and female participants the program works wonders. Jurich and Estes (2000) point out that the statistics show that students who remain in the club for 18 months or more dramatically improve their grades and realize college aspirations.

Jurich and Estes (2000) suggest that B&GCA especially excels with males because of the emphasis of sports and recreation as a reward system for completing schoolwork. In the after-school program for example, the students arrive at 3:30 p.m. and work on homework until 6 p.m. From 6 p.m. until 9 p.m. students are rewarded with access to all the athletic facilities the club provides. This positive reinforcement lures males into the program that normally would not attend just to do their homework. The facilities of the club attract the males and make them willing to excel in school to receive the access to the recreational facilities.

# The Seven Vectors of Development

Chickering and Reisser (1993) provides an overview of the establishment of identity in youth and how it can help address issues that may arise later in the development process. The authors provide seven vectors of development that they believe are "major highways for journeying towards individuation" (Chickering & Reisser, 1993, p.35). First, developing competence is one of the main vectors that can

be utilized in early intervention programs before a child enters postsecondary education.

Establishing "a sense of competence" that gives children the confidence that one can cope with whatever comes along and achieve goals successfully (Evans, Forney, & Guido-Dibrito, 1998). The second vector, managing emotions, helps students develop the ability to recognize and accept emotions. In addition, students learn also how to appropriately express and control their emotions. When one grows up economically deprived in an environment that does not yield much for personal development as a youth, developing a strong sense of identity and learning how to control anger, anxiety, shame, and guilt becomes essential in a child's life.

The third vector is "Moving through autonomy toward interdependence" (Chickering & Reisser, 1993, p.117). This vector focuses on increased emotional independence or freedom; freedom from continual and pressing needs for reassurance, affection, and approval from others.

The fourth vector deals with developing mature interpersonal relationships.

The focus is on accepting individuals for who they are, to respect difference, and to appreciate commonalities.

Establishing identity, vector five, includes comfort with body and appearance and comfort with gender and sexual orientation. Also, included are a sense of one's social and cultural heritage, a clear self-concept, and comfort with one's roles and lifestyle choices. Finally, a secure sense of self-acceptance and self-esteem, and personal stability are all significant in an individual's growth (Evans, et al., 1998).

Vector six deals with developing a sense of purpose which illustrates creating clear vocational goals and committing to specific personal objectives. Finally, establishing a sense of personal integrity completes the seven vectors.

According to Chickering and Reisser (1993), educational environments exert powerful influences on student development. Applying any or all of the seven vectors into the learning of youth work wonders in developing that child for continual learning.

# The C.H.A.M.P./GEAR-UP Program

Founded in 1985, Rowan University's Creating Higher Aspirations and Motivations Project (C.H.A.M.P.) began as a pre-college program at the Camden Campus. Today, this program servers over 250 students attending seventh through twelfth grade in Camden City, Millville, Vineland, and Bridgton Public Schools.

In the fall of 2000, the C.H.A.M.P. Program received a New Jersey GEAR-UP grant (Gaining Early Awareness and Readiness for Undergraduate Programs). This grant enabled C.H.A.M.P. to better assist middle and high school students at Camden High and Woodrow Wilson, R.T. Cream, and Cooper's Poynt Family Schools.

The purpose of the program is to provide academic opportunities to at-risk student populations in the City of Camden, New Jersey. The program places a strong emphasis on parent involvement. The parent workshops are designed to support and enhance the lives of the entire family. Workshops in resume writing, computer literacy, and public speaking help the parents become more marketable in the workforce. In addition, other courses in math and science allow parents to be able to help their children with current subject material.

# Two Components of the C.H.A.M.P. Program

During the school year, C.H.A.M.P. students participate in academic and career counseling. Tutoring is provided four days each week in all academic subjects. PSAT / SAT tutorial classes are offered two days a week. GEPA and HSPA tutorial classes are held over 20 Saturdays, covering the months of September to late May. Extensive assistance in the college admissions process is provided to all high school seniors.

In the summer months, the program is divided into three divisions (juniors, seniors, and residential). The purpose of the program is to work with students from grades seventh through twelfth to help improve their reading, writing, math, and science skills. To accomplish these goals the students are exposed to mentoring, tutoring, counseling, college field trips, public speaking, and many other enrichment activities. Emphasis is also placed on building self-esteem, social and cooperative skill development as well as expose to career options.

The students engage in environmental science workshops, which are a series of mathematical and earth science instructions that are performed outdoors. The main focus of the six-week experience is Pineland ecology. The summer program focuses on promoting knowledge of Pineland ecology, physical science, & writing skills.

# Student Requirements for Recruitment

For acceptance into the program the following criteria is mandatory: social security card, proof of address, birth certificate, current federal 1040 tax forms, school transcripts, and student medical records. Once this documentation is collected, an interview with the potential candidate can be arranged. If the student is selected to

participate in the C.H.A.M.P./GEAR-UP Program, he/she will begin normally in the fall term, attending Saturday courses in math, literature, writing, public speaking, and computers.

# **GEAR-UP Program**

United States Representative Chaka Fattah, D-Pa., is the GEAR-UP program's first and perhaps the most ardent legislative champion in Washington, D.C. Representative Fattah introduced the legislation supporting the program, and believes in the impacts of all pre-college programs. The Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR-UP) was signed into public law by President Bill Clinton in 1998 (Fields, 2001).

Upon the signing of the bill, several programs were developed to assist targeted children in aspiring to college. In many areas in the United States, several pre-college programs already existed. The C.H.A.M.P. Program of Rowan University in Camden, New Jersey was adopted by the GEAR-UP Program and provided monies to not only continue its service, but expanded on existing projects to better serve the population. Today, because of the adoption of the GEAR-UP Program, the C.H.A.M.P. Program is able to provide services to three divisional projects (Junior, Senior, and Residential). The organization also has expanded from Camden to Cumberland County serving schools in Millville, Bridgeton, and Vineland.

United States Representative Fattah, saw the need for earlier intervention before high school in order to effectively prepare disadvantaged youth for higher education. He believed that waiting until high school was too late. "Often students

are already so far behind academically that the need for remediation once they enroll in college can be great" (Fields, 2001, p.5).

Chickering and Reisser (1993) spends some time discussing the importance of "friendships and student communities" along with the significance of "student development programs and services" (Chickering and Reisser, 1993, p. 117).

Chickering and Reisser states that meaningful friendships and diverse student communities in which shared interests exist and significant interactions occur encourage development. Early intervention programs help foster theses friendships and surround students with individuals that have the same aspirations. The environment that stresses academic excellence, promotes rewards, and develops programs for student achievement is the best format for kids.

Programs that focuses on significant issues such as the cost of college, grants, work-study, student loans, and other financial aid sources should be initiated early in a student's academic career. Many at-risk students need this help to successfully apply, attend, and graduate from college. Using an early intervention program assists in eliminating the boundaries that exist between schools and colleges; it discourages dropouts, and gives students hope to pursue entrance to college (Martin, 2002).

Student development had been defined as, the ways that a student grows, progresses, or increases in his / her developmental capabilities as a result of enrollment in an institution of higher education (Evans, et at., 1998). Beginning the process of developing the whole person, should start as early as the seventh grade. The effort would make a great impact on youth, especially males at this very impressionable time in their lives.

# Summary of Literature Review

The literature suggests that early intervention programs make a positive impact on the youth grades seventh through twelfth. Particularly with first generation innercity youth, pre-college programs seem to make the most academic impacts. Further, programs like Upward Bound and DAPCEP have made great strides of improvement with the recruitment and retention of young males.

The Boys and Girls Club of America not only provides a safe haven for students to attend after school, but it also provides a constructive environment for students to do homework and prepare for exams. The program serves approximately three million children from economically disadvantage areas across the United States.

The C.H.A.M.P./GEAR-UP Program has been in existence since 1985 and has served over 500 students as a pre-college program. Unfortunately, very little empirical data exists on the benefits of these early intervention programs. Yet, the literature does suggest that these programs have been instrumental in helping at-risk youth attend colleges and universities. The literature also implies that inner city students benefit most from these services.

More research needs to be performed in order to better understand the impacts of early intervention programs on youth desiring to go to college.

#### CHAPTER THREE

#### METHODOLOGY

# Context of the Study

The target areas for the research study were two selected schools in Camden, New Jersey; Cooper's Poynt Family School (K-8) and Woodrow Wilson High School (9-12). These targeted schools are part of the Camden School District. Cooper's Poynt Family School is a model institution for the district and has been adopt by Rowan University to further enhance growth as a leading elementary school. Woodrow Wilson, on the other hand, has been labeled by the New Jersey Department of Education as one of the most dangerous schools in the region. This is due to fights, drug activity, weapon and poor facilities that have been prevalent at the high school campus in recent years.

# Population and Sample

The participants in the study consisted of 92 students that were recruited through a convenience sampling process. Convenience sampling is a sample selected based on availability. For purposes of the study, 120 surveys were distributed and 92 were randomly returned, based on the availability and cooperation of the participants. The racial make-up of the studied population was primarily African and Hispanic American. Most of the students that are in the program enter in good academic standing and are first generation college applicants when they are eligible to apply.

Woodrow Wilson High School and Cooper's Poynt Family School have been active members of the C.H.A.M.P./GEAR-UP Program since 1985. The principals, teachers, and school secretaries were instrumental in providing necessary data such as report cards, test scores, and college enrollment information.

#### Instrumentation

To protect the rights and safety of the student participants, student and parent informed consent forms were issued along with cover letters explaining the enclosed survey and the purpose of the instrument (Appendix A). The application was approved by the Chair of the Rowan University Institutional Review Board, Dr. Tricia J. Yurak, on March 2, 2004 at 2:27 p.m. Participants were asked to read and sign the consent from prior to completing the survey.

The data were gathered by a 15 question, cross-sectional survey (Appendix D). In order to obtain relevant information corresponding to the existing literature the survey was designed based on the Annual GEAR-UP Program survey that is administered as an assessment of achievement for GEAR-UP Programs statewide. The survey design was modified for purposes of the C.H.A.M.P./GEAR-UP population and broken down into four sections: background, attitudes and opinions of program, quality ratings of services, and overall effectiveness. To ensure that the instrument would be valid, reliable, and free of bias, a pilot study was conducted during January 2004. Forty C.H.A.M.P./GEAR-UP students completed the prototype survey and provided a critique of the overall design and made recommendations for improvement. Based upon pilot feedback the survey was improved by adding clearer directions of the four sections and a more defined objective. Improvements to the

Likert scale consisted of simplified scale modifiers and corrected 4-point Likert scale that created unintended built-in bias towards "agreement" on attitudes and opinion questions. The new Likert scale was based on a 5-point Likert scale as follows: 1 - strongly disagree; 2 - disagree; 3 - undecided; 4 - agree; 5 - strongly agree.

The final cross-sectional survey consisted of four sections. The first section obtained basic background information with respect to numbers of years in program, gender, ethnicity, parent education, birth date, and current grade level. The second section consisted of a series of statements designed to obtain the degree to which the participants agreed on the positive impacts of the C.H.A.M.P./GEAR-UP Program on student achievement. The third section consisted of an additional series of statements designed to obtain the degree to which the participants agreed on the overall quality of the academic services provided by the C.H.A.M.P./GEAR-UP Program. The fourth section asked the participants to rate based on a scale of 1 to 10, the overall effectiveness of the program.

Ninety-two surveys were returned which yielded a return rate of 77%. The survey data were complimented by environmentally based pre-post test results provided by the C.H.A.M.P. Program and by the Guidance Department of Woodrow Wilson High School, located in Camden, New Jersey.

Information was collected through the reading of relevant material in the fields of early intervention programming. In addition, data came from the mass mailing and completion of the 15 question surveys focusing on the research questions two and three of the thesis: (2) What are the opinions of the students and parents of the

program regarding the services provided? (3) What are the impacts of the C.H.A.M.P./GEAR-UP Program participant's on the college application process?

Additional procedures used for the research involved identifying possible candidates for the study. Students were randomly chosen from the C.H.A.M.P. pool of past and present members and then information (report cards and test records) were gathered at the C.H.A.M.P./GEAR-UP head quarters located on 200 North Broadway and Cooper Streets in Camden, New Jersey. Additional data collection occurred through targeted school visitation, home visits, e-mail, and post mail services.

Obtaining student, parent, and institutional approval were perhaps the most vital aspect of the program in beginning the gathering of data. The Institutional Review Board committee would not have approved the research without these guidelines being completed first. Parental consent and institutional awareness and support were mandatory in order for the research to continue. The researcher received IRB approval on March 3, 2004 (Appendix D).

#### Procedure of Gathering Data

On March 4, 2004, 120 surveys were mailed and distributed to two participating schools, Cooper's Poynt Family School and Woodrow Wilson High School. The package included a cover letter explaining the purpose of the survey (Appendix B), a student and parent consent form (Appendix C), the survey (Appendix F), and a stamped, self-addressed envelope to return the completed survey. The survey collection period closed March 24, 2004 and data analysis began.

# Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) Software Program at Rowan University. Descriptive statistics were calculated for the means, percent, and standard deviation for survey items. The background data were organized to provide information on each subjects number of years served in the program, gender ratios, parent education, attitudes and opinions regarding the C.H.A.M.P./GEAR-UP Program, quality ratings on college services, and overall effectiveness of the organization. Other data used in study and not included in SPSS, was summer pre/post test data information. This information was placed into graph form and provided to further answer the research questions of the thesis.

#### CHAPTER FOUR

#### **FINDINGS**

# Profile of the Sample

The participants in the study consisted of 92 students that were recruited through a convenience sampling process. Convenience sampling is a sample selected based on availability. For purpose of the study, 120 surveys were distributed and 92 were returned, based on the availability and cooperation of the participants for a response rate of 77%. The racial make-up of the studied population was primarily African and Hispanic American. Most of the students in the program enter in good academic standing and are first generation college applicants when they applied.

The overall participation mean of years within the C.H.A.M.P./GEAR-UP Program is 3.5 (SD 1.68). The ethnic population of the C.H.A.M.P./GEAR-UP Program is primarily Hispanic and African American. The larger of the two groups represented in the program are African-American student populations. The female population of the C.H.A.M.P./GEAR-UP Program is in the majority over their male counterparts. In fact, of the 92 surveyed, 65.2% of the subjects were female.

The young men of the program represented only 34.8% of the studied population. Tables 4.1 through 4.3 represent the average years a student remains in the C.H.A.M.P./GEAR-UP Program, the ethnic population of the sample group, and the male to female percentages.

Table 4.1 represents the participant's years in the C.H.A.M.P./GEAR-UP Program. The response rate for the question regarding number of years in the program was 66 %. The range of years of participation for this sample was two to five years. The remaining 34% of the sample have a range of six to seven years or more in the C.H.A.M.P./GEAR-UP Program. No students surveyed for this project spent less than three years in the early intervention program.

Table 4.1

Years in C.H.A.M.P./GEAR-UP Program

Years	n = 92, M = 3.5 SD., Dev = 1.68 Frequency	Percent
<1	0	0
1	0	0
2	11	12
3	18	19.6
4	20	21.7
5	12	13
6	18	19.6
7	10	10.9
>7	3	3.3
Total	92	100

Table 4.2 describes the ethnic make-up of the sample surveyed. The majority of the C.H.A.M.P./GEAR-UP Program members were 65% African-American, Hispanic (Puerto Ricans) represent the second largest number of students in the program with a figure of 22.8%. Asians made up just 4% of the student served with the pre-college program, followed by 3.3% Caucasian students that were also participants in C.H.A.M.P. For purposes of this study, only Hispanics and African-American student data were used to study the effectiveness of early intervention programs.

Table 4.2

Ethnicity

Race	n = 92, SD = .81, M = 3.4 Frequency	Percent
Asian	4	4.3
African American	60	65.2
Hispanic	21	.22.8
Caucasian	3	3.3
Other	4	4.3
Total	92	100

Table 4.3 displays a disproportionate amount of female students within the C.H.A.M.P./GEAR-UP Program. African-American and Hispanic males only make up 34.8% of the CHAMP sample, whereas women are 65.2% of the sample studied.

Table 4.3

Gender

	00 14 4 05 05 40	
	n = 92, M = 1.65, SD = .48 Frequency	Percent
Male	32	34.8
Female	60	65.2
Total	92	100

# Research Questions

Research Question 1: What impact does the C.H.A.M.P./GEAR-UP Program have on participant's academic achievement?

Tables 4.4 through 4.6 provide information regarding research question 1.

Based on data provided by the Pre/Post Test administered to all 3 divisions of the program, there was a considerable increase in student achievement scores.

Specifically, for Junior C.H.A.M.P. there was an average percentage increase of

29.7%. Senior C.H.A.M.P. improved on the summer test scores by an average of 13.6%, and the residential component of C.H.A.M.P. improved by an average of 4%.

#### Junior Division

The Junior C.H.A.M.P. component of the program recruits youth in grades seventh through eighth, from two targeted family schools within the City of Camden, New Jersey. Those two institutions that have been accepted to participate in the C.H.A.M.P./GEAR-UP Program are Cooper's Poynt Family School and Rilletta Twine Cream School. These schools were chosen because of their close proximity to the Rowan University Camden Campus and the statistical need to help the at-risk student population at both schools.

Table 4.4

Junior C.H.A.M.P. Pre/Post-Test Results

			Post-	·		
	Pre-Test	Pre-	Test	Post-		
	Raw	Test	Raw .	Test		Percent
Nama	Scores	Percent	Scores	Percent	Gain	Gain
<u>Name</u>	M=14	M=47.4 .	M=23	M=76.3	. M=9	M=29.7
A, J	16	53.3	25	83.3	, <b>9</b>	30
A, J	19	63.3	did	not	take	exam
B,K	13	43.3	23	76.7	10	33.3
C,E	14	46.7	24	80	10	33.3
C,C	16	53.3	did	not	take	exam
D,J	9	30	22	73.3	13	43.3
D, C	10	33.3	19	63.3	9	30
F,S	13	43.3	23	76.7	10	33.3
H,N	14	46.7	22	73.3	8	26.7
J,T	10	33.3	18	60	8	<u>,</u> 26.7 ~
J,R	12	40	did	not	take	exam
L,B	16	53.3	did	not	take	exam
N,C	23	76.7	26	86.7	3	10
P,T	13	43.3	19	63.3	6	20
$P_{i}J$	15	50	27	90	12	40
R,A	12	40	20	66.7	8	26.7
R,J	17	56.7	24	70	7	23.3
S,S	13	43.3	20	66.7	7	23.3
S,L	13	43.3	21	70	8	26.7
S,L	12	40	25	83.3	13	43.3

T,D	22	73.3	28	93.3	6	20
T,L	13	43.3	25	83.3	12	40
W,K	8	26.7	23	76.7	15	50
W,B	16	53.3	24	80	8	26.7
W,C	13	43.3	did	not	take	exam
W,A	18	60	23	76.7	5	16.7

During the 2003 summer program, Junior C.H.A.M.P. recruited 26 students to endure the rigorous academic program. Of that figure, 21 students or 80% completed the summer program. The participating students are required to take a pre and posttest. The exam covers math, reading, writing, physical science and pine ecology. These exams are used to determine the overall effectiveness of the summer component for the Junior C.H.A.M.P. Program.

The overall test scores showed an average percentage increase for junior division of 29.7%. These figures provide an indication that at least for the students that participated in the six-week summer program that their scores improved significantly due in part to the rigorous academic summer experience.

#### Senior Division

In the senior component of the program the students are recruited primarily from two high schools. These schools are Woodrow Wilson and Camden High Schools. The two high schools were accepted into the program because at the time they were the only two high schools in the city. Both schools are marked by a high drop-out rate and low entrance into postsecondary education.

The students in the senior C.H.A.M.P. component are also required to take a pre and post-test. However, the exam differs from the one given to the junior

program since the senior program was more writing intensive and emphasized reading comprehension.

The scores for senior participants increased by an average of 13.6 % (Table 4.5). The highest score was an 80 out of 100%. According to the survey data, of the 92 students participating in senior C.H.A.M.P., 79 completed the program or 85 %.

Table 4.5
Senior Field Based Program 2003

	Pre-Test		Post-Test	·····- ,		
	Raw	Pre-Test	Raw	Post-Test		Percentage
•	Scores	Percent	Scores	Percent	Gain	Gain
Name	M=19	M=46.8	M=24	M=60.9	M=5	M=13.6
A, J	21	52.5	28	70	7	17.5
A, S	20	50	27	67.5	7	17.5
B, E	25	62.5	27	67.5	2	5
B, T	12	30	18	45	6	15
B, R	14	35	22	55	8	20
B, M	13	32.5	did	not	take	exam
B, K	22	55	21	52.5	-1	-2.5
B, K	12	30	20	50	8	20
C, D	17	42.5	did	not	take	exam
C, J	19	47.5	22	55	3	7.5
C, N	21	52.5	28	70	7	17.5
C, A	25	62.5	31	77.5	6	15
C, I	19	47.5	23	57.5	4	10
C, J	17	42.5	26	65	9	22.5
D, C	25	<b>62.5</b> .	26	65	1	2.5
D, M	12	30	25	62.5	13	32.5
D, P	21	52.5	29	72.5	8	20
R, E	13	32.5	14	35	1	2.5
E, A	24	60	28	70	4	10
F, A	9	22.5	21	52.5	12	30
F, J	14	35	23	57.5	9	22.5
F, S	15	37.5	19	47.5	4	10
F, S	19	47.5	22	55	3	· 7.5
G, M	21	52.5	did	not	take	exam
G, R	18	45	did	not	take	exam
A, P	19	47.5	22	55	3	7.5
G, J	19	47.5	did	not	take	exam
G, B	22	55	25	62.5	3	7.5
G, A	22	55	28	70	6	15
G, J	16	40	25	62.5	9	22.5
H, A	18	45	did	not	take	exam
H, K	21	52.5	did	not	take	exam

H, S	20	50	22	55	2	5
H, A	18	45	27	67.5	9	22.5
H, A	19	47.5	24	60	5	12.5
H,A	10	25	22	55	12	30
J, C	18	45	23	57.5	5	12.5
J, M	16	40	24	60	8	. 20
K, L	21	52.5	25	62.5	4	10
L, E	21	52.5	24	60	3	7.5
L, B	21	52.5	28	70	7	17.5

# Campus Residential Program

Table 4.6 presents the pre and post-test data for the 2003, designed to enhance knowledge about computer science, writing skills, SAT prep courses, math, literature, and lab science. Overall, the average percentage gain was a modest 4%. The students representing residential C.H.A.M.P. were comprised of 11th and 12th grades attending Woodrow Wilson and Camden High School. A smaller portion of students were also included from Bridgeton, Millville, and Vineland had 10 of the 30 students involved in the residential C.H.A.M.P. Program.

Table 4.6

Residential C.H.A.M.P. Pre/Post-Test Scores

•			Post-			_
	Pre-Test	Pre-	Test	Post-		
	Raw	Test	Raw	Test		Percent
	Scores	Percent	Scores	Percent	Gain	Gain
_Name	M=18	M=51.2	M=19	M=55.4	M=1	M=4.1
A, J	24	68.6	22	62.9	-2	-5.7
B, A	12	34.3	15	42.9	3	8.6
B, D	21	60	24	68.6	3	8.6
C, S	19	54.3	19	54.3	0	0
C, K	20	57.1	23	65.7	3	8.6
G, J	15	42.9	20	57.1	5	14.3
D, C	21	60	23	65.7	2	5.7
H, M	19	54.3	21	60	2	5.7
i, D	14	40	20	57.1	6	17.1
J, O	17	48.6	18	51.4	1	2.9
J, S	16	45.7	17	48.6	1	2.9
L, M	. 21	60	22	62.9	1	2.9

L, H	18	51.4	21	60	3	8.6
L, E	17	· 48.6	did	not	take	exam
M, D	17	48.6	20	57.1	3	8.6
M, J	22	62.9	17	48.6	-5	-14.3
M, K	17	48.6	19	54.3	2	5.7
P, L	18	51.4	18	51.4	0	0
P, B	14	40	17	48.6	3	8.6
R, N	16	45.7	18	51.4	2	5.7
S, J	23	65.7	24	68.6	1	2.9
S, R	18	51.4	18	51.4	0	0
S, P	22	62.9	18	51.4	-4	-11.4
S, T	18	51.4	21	60	3	8.6
V, D	15	42.9	15	42.9	1	2.9
W, E	14	40	15	42.9	1	2.9
W, M	16	45.7	14	40	-2	-5.7

### Survey Data

A 15 question survey focused on answering research questions two, What are the attitudes and opinions of the students and parents of the C.H.A.M.P./GEAR-UP Program regarding the services provided?, and three, What impact does the C.H.A.M.P./GEAR-UP Program have on the college application process of participants?

The purpose of the survey was to evaluate the effectiveness of the C.H.A.M.P./GEAR-UP Program. One hundred-twenty surveys were distributed and ninety-two were returned. Questions one through five of the survey focused on the demographics of gender, race, birth rate, number of years in the program, and grade level in which the students started the C.H.A.M.P./GEAR-UP Program. Question six focused on the educational level of the parents. Options included: less than high school, high school only, associates degree, bachelors, graduate or professional degree, and other. Questions seven through thirteen focused on attitudes and student

opinions regarding impacts of the program on academic achievement. Finally, questions 14 and 15 concentrated on each subject's opinion regarding services provided by the C.H.A.M.P. Program and an overall rating of the organization as a whole.

Research Question 2: What are the attitudes and opinions of the students and parents of the C.H.A.M.P./GEAR-UP Program regarding the services provided?

Table 4.7

Attitudes and Opinion of C.H.A.M.P./GEAR-UP Students

Level of Agreement	College Attendance n = 92, SD = 1.22, M = 3.7 Frequency	%	Improved My Grades n = 92, SD = .83, M = 3.9 Frequency	%	Influenced by CHAMP n = 92, SD = 1.22, M = 3.7 Frequency	%
Strongly Disagree	5	5.4	2	2.2	1	1.1
Disagree	16	17.4	2	2.2	Ö	0
Undecided	8	8.7	18	19.6	9	9.8
Agree	36	39.1	50	54.3	54	58.7
Strongly Agree	27	29.3	20	21.7	28	30.4
Total	· 92	100	92	100	92	100

Table 4.7 provides information regarding the attitudes and opinions of the C.H.A.M.P./GEAR-UP students regarding services provided. Sixty-eighty percent of the subjects strongly agreed or agreed that college attendance programs were effective. Seventy-six percent of the population strongly agreed or agreed that the program helped their grades improve. Further, 89% of the group strongly agreed or agreed the C.H.A.M.P./GEAR-UP Program provided positive influences on attending college.

Research Question 3: What impact does the C.H.A.M.P./GEAR-UP Program have on the college application process of participants?

Table 4.8

Impact of CHAMP/GEAR-UP Program on College Attendance and Success

Level of	No impact n = 92, SD = 1.04, M = 1.8		College tours Valuable n = 92, SD = .74, M = 4.2		Mentoring Program n = 92, SD = .85, M = 3.8	
Agreement	Frequency	%	Frequency	<u>%</u>	Frequency	%
Strongly Disagree	42	45.7	1	1.1	1	1.1
Disagree	34	37	1	1.1	4	4.3
Undecided	7	7.6	8	8.7	23	25
Agree	6	6.5	<sup>.</sup> 48	52.2	24	47.8
Strongly Agree	3	3.3	34	37	20	21.7
Total	92	100	92	100	92	100

Table 4.8 compliments the previous information reported by further illustrating the impact of the CHAMP Program, along with an evaluation of the college visitation program and the GEAR-UP Mentoring Program. Eighty-two percent of the students surveyed, disagreed or strongly disagreed that the C.H.A.M.P./GEAR-UP Program had no impact on their academic achievement. Further, 89.2 % of the sample agreed or strongly agreed that the college tours throughout the State of New Jersey were valuable experiences. Finally, 69.5% agreed or strongly agreed that the mentoring component of the program is essential to student achievement.

Table 4.9

Quality Ratings of C.H.A.M.P./GEAR-UP Program Activities and Services

Level of Agreement	College Admission Info n = 92, SD = .89, M = 1.9 Frequency	%	Financial Aid Workshops n = 92, SD = 1.08, M =2.1 Frequency	%	College Tours n = 92, SD = .98, M = 1.9 Frequency	%
Excellent	37	40.2	31	33.7	41	44.6
Very Good	33	35.9	31	33.7	29	31.5
Good	19	20.7	18	19.6	15	16.3
Fair	2	2.2	10	10.9	6	6.5
Poor	1	1.1	2	2.2	1	1.1
Total	92	100	92	100	92	100

Tables 4.9 through 4.11 give quality rating opinions of the sample as a means of determining the overall satisfaction with the C.H.A.M.P./GEAR-UP Program.

Table 4.9 provides information concerning the college process, financial aid, and college tours. Seventy-six percent rated the college admission information and process of the C.H.A.M.P. / GEAR-UP Program as either excellent or very good. Sixty-seven percent of the respondents felt that the financial aid process was either an excellent or very good experience. College tours were rated to be excellent or very good by 76 % of the respondents. Conversely, 1.1 % of the respondents answered "poor" to the services provided by the program.

Table 4.10

Quality Ratings of C.H.A.M.P./GEAR-UP Program Activities and Services

-	Personal Counseling n = 92, SD = .90, M = 1.9		Scholarship Information n = 92, SD = .93, M = 1.8	-	Individual Tutoring n = 92, SD = 1.00, M = 2.0	
Level of Agreement	Frequency	%	Frequency	%	Frequency	%
Excellent	37	40.2	39	42.4	40	43.5
Very Good	33	35.9	35	38	24	26.1
Good	17	18.5	12	13	20	21.7
Fair	5	5.4	5	5.4	8	8.7

Poor	0	0	1	1.1	0	0
Total	92	100	92	100	92	100

In Table 4.10 personal counseling, scholarship information programs, and individualized tutorial services were evaluated by the students. Overall, personal counseling was describe as excellent to very good by 76.1 % of the respondents.

Scholarship information provided to the students received an excellent to very good rating of 80.4%. This was preceded by a 69.6% excellent to very good rating for individualized tutoring.

Table 4.11

Quality Ratings of C.H.A.M.P./GEAR-UP Program Activities and Services

,	GEPA Prep Classes n = 92, SD = 1.03, M = 2.0		HSPA Prep Classes n = 92, SD = 1.10, M =2.2		SAT Prep Classes n = 92, SD = 1.06, M = 2.2	-
Level of Agreement	Frequency	%	Frequency	%	Frequency	%
Excellent	38	41.3	32	34.8	30	32. 6 32.
Very Good	27	29.3	26	28.3	30	6 22.
Good	18	19.6	22	23.9	21	8
Fair	8	8.7	10	10.9	9	9.8
. Poor	1	1.1	· 2	2.2	2	2.2
Total	92	100	92	100	92	100

Table 4.11 presents the quality rating opinions given by the students that received test preparation assistance. The GEPA prep courses were describe by 70.6% of the respondents as excellent and very good. The HSPA prep classes were described by 63.1% of the respondents as excellent to very good. Finally, the SAT review courses were described by 65.2% of the respondents as excellent to very good.

Table 4.12

Quality Ratings of C.H.A.M.P./GEAR-UP Program Activities and Services

	Six-Week Summer Program n = 92, SD = 1.02, M =1.8	0/	Residential Program n = 92, SD = 1.02, M = 1.8	0/
Level of Agreement	Frequency	%	Frequency	%
Excellent	47	51.1	49	53.3
Very Good	20	21.7	19	20.7
Good	17	18.5	16	17.4
Fair	8	8.7	8	8.7
Poor	0	0	0	0
Total	92	100	92	100

The final component of the C.H.A.M.P./GEAR-UP Program is the six-week summer program that is normally held in the first week of July and continues until mid-August. Over 300 students participate in the summer program every year and the majority are returning students. Table 4.12 represents the responses of students from the C.H.A.M.P. Junior, Senior, Residential programs.

The six-week summer camping component of the program was described by 78.2% of the respondents as excellent to very good. The residential component was also viewed similarly with 74% of the respondents answering excellent to good.

Table 4.13

Overall Effectiveness of C.H.A.M.P./GEAR-UP Program

Rating Scale	n = 92, M = 8.4, SD = 1.73 Frequency	%
1	0	0
2	0	0
3	3	3.3
4	2	2.2
5	1	1.1
6	5	5.4
7	8	8.7
8	25	27.2
9	16	17.4
10	32	34.8
Total	92	100

Table 4.13 presents the attitudes and opinions of the subjects regarding the overall effectiveness of the C.H.A.M.P./GEAR-UP Program. Respondents rated the program on a scale of one to ten with ten being the highest score. Seventy-nine percent of the respondents gave the program a rating of eight or above.

#### CHAPTER FIVE

# SUMMARY, DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

### Summary of the Study

The goal of early intervention / pre-college programs is to enable youth as early as 7<sup>th</sup> grade to successfully prepare for a postsecondary education. The belief is that if this process is begun early in a child's life, the transition from middle school to high school to college, will lead to greater socio-economic opportunities and a higher quality of life.

In this study, 89 % of the sample strongly agreed or agreed that the C.H.A.M.P./GEAR-UP Program provided positive influences on attending college. Further, 79 % of the respondents gave the program a rating of eight or above. Finally, all services provide by the C.H.A.M.P. /GEAR-UP Program received a 63 % percent or above very good to excellent response ratings.

### Purpose of the Study

Early intervention / pre-college programs have shown promise in assisting at risk students to pursue higher education opportunities. However, there is relatively little evidence evaluating the effectiveness of early intervention programs.

The purpose of the study was to explore the impact of selected early intervention programs on past and present participants. Of particular focus, was the C.H.A.M.P./GEAR-UP Program of Rowan University in Camden, New Jersey.

### Methodology

The participants in the study consisted of 120 conveniently selected students from the C.H.A.M.P./GEAR-UP Program. Of the 120 students, 92 completed a survey, resulting in a response rate of 77%. In order to safeguard the rights and welfare of student participants, an Institutional Review Board (IRB) application (Appendix A) was completed on January 29, 2004 and submitted to the Rowan University IRB for approval. Participants (Parents and Students) were asked to read and sign a consent form (Appendix C) prior to completing the survey. In addition, institutional awareness and support for the research from the cooperating schools were also obtained. Letters of support and institutional approval were issued to the researcher on February 27, 2004 (Appendix E). The IRB application was approved on March 2, 2004 (Appendix A).

Data were gathered through two sources: a pre-post test and a 15 question survey. The pre-post test was an exam administered by the C.H.A.M.P./GEAR-UP Program to determine how much the students knew regarding Pineland ecology, physical science, and writing skills. One exam is given at the beginning of the six week summer program and another at the conclusion of the program to determine if essential learning has taken place. Scores of the pre-post test for all three division of C.H.A.M.P. (Junior, Senior, Residential) were tabulated and can be reviewed in tables 4.4 through 4.6 in chapter four.

The second source of data was developed through a 15-question survey titled "Effectiveness of C.H.A.M.P./GEAR-UP Program," (Appendix D). A five-point Likert scale was utilized to address the level of participant agreement to statements

regarding attitudes and opinions toward the C.H.A.M.P./GEAR-UP Program, impacts of the program, quality ratings of services provided, and an overall effectiveness of the program.

On March 3, 2004, 120 surveys packets were distributed to the selected student sample. The packets included a cover letter explaining the purpose of the survey, a participant's (parent and student) consent form, institutional approval forms, the survey and a stamped, self-addressed envelope to return the completed survey. The survey collection period was closed on March 24, 2004, and data analysis occurred immediately.

### Data Analysis

The overall test scores of the pre-post test yielded an average percentage increase for the junior division of 29.7% (Table 4.4). Senior C.H.A.M.P. also experienced an increase after six weeks of intensive academic training, with a percentage increase of 13.6 % (Table 4.5). For the residential C.H.A.M.P. group, the average percentage gain was 4% (Table 4.6).

The Likert scale data were primarily analyzed using the Statistical Package for the Social Sciences (SPSS) software program. SPSS grouped statistics providing means, percents, and standard deviations (SD) for each category. This information was used to respond to research questions two and three. Research question one, was answered using the pre/post-test data as described in Tables 4.4 through 4.6.

### Findings and Discussions

Research Question 1: What impact does the C.H.A.M.P./GEAR-UP Program have on selected participant's academic achievement?

Pre and post-test data from the three divisions of the C.H.A.M.P./GEAR-UP Program, supports Kezar's (2001) research that participation in pre-college programs can substantially enhance the ability of disadvantage students to attend college by helping them build academic skills. Students were pre-tested to determine familiarity with math, environmental science, reading, and writing. Students then participated in a six-week summer program receiving intensive work in math, environmental science, reading, and writing. Following successful completion of the six-week summer program, all three divisions of the C.H.A.M.P./GEAR-UP Program experienced increased test results. The junior division earned a 29.7% increase, while the senior division increased by 13.6% and the residential division increased by 4%.

Research Question 2: What are the attitudes and opinions of the students and parents of the C.H.A.M.P./GEAR-UP Program regarding the services provided?

Chickering and Reisser (1993) provide an overview of the establishment of identity in youth and how it can help address issues that may arise later in the human development process. Establishing "a sense of competence and identity" that gives children the confidence to cope with whatever challenges life brings is one of the central themes in Chickering and Reisser's work.

In the summer months, the C.H.A.M.P. Program is divided into three divisions (juniors, seniors, and residential). The purpose of the program is to work with students from grades seventh through twelfth to help improve reading, writing, math and science skills. To accomplish these goals the students are exposed to mentoring, tutoring, counseling, college field trips, public speaking, and many other enrichment

activities. Emphasis is also placed on building self-esteem, social and cooperative skills, and career exploration.

Students engage in environmental science workshops, which are a series of mathematical and earth science instructions that are performed outdoors. The main focus of the six-week experience is Pineland ecology. The summer program focuses on promoting knowledge of Pineland ecology, physical science, & writing skills.

Responses to the 15-question survey designed to evaluate the effectiveness of the C.H.A.M.P./GEAR-UP Program supports Chickering and Reisser (1993) belief that early intervention programs make a positive impact on life of an adolescent.

Data from the survey showed the positive influence the program has on college attendance, grades, and academic aspirations. In regards to college attendance, 36% of the population agreed that C.H.A.M.P./GEAR-UP assisted in college attendance process, while an additional 27% strongly agreed that the college attendance services were excellent.

A high percentage of students reported improvement in the grades section of the survey. Seventy percent of the population either agreed or strongly agreed that the program helped improve their overall academic performance. Finally, students were asked if C.H.A.M.P./GEAR-UP Program influenced their college aspirations; 88% of the students either agreed of strongly agreed with the statement.

Research Question 3: What impact does the C.H.A.M.P./GEAR-UP Program have on the college application process of participants?

Martin (2002) believes that pre-college programs are at their best when they focus on providing significant information on costs of college, grant funding

opportunities, work-study, student loans, and other financial aid sources. Martin feels that this should be initiated early in a student's academic career. Many at-risk students need this help to successfully apply, attend, and graduate from college.

Included in the survey were several questions focusing on the college application process and to what extent the C.H.A.M.P./GEAR-UP Program played a role in the process. Eighty-two percent of the respondents disagreed with the statement that C.H.A.M.P. had no impact on their academic success or college attendance. College tours were rated to be excellent to very good by 76 % of the respondents; the mentoring program was found to be helpful and necessary by 69.5% of the surveyed group.

Finally, students were asked to rate the overall effectiveness of the C.H.A.M.P./GEAR-UP Program. Seventy-nine percent of the respondents gave the program a rating of eight and above on a 10 point scale.

### Conclusions

The majority of C.H.A.M.P./GEAR-UP students agreed that participating in the program had a positive impact on their academic lives. Respondents indicated that college admission information and tours were the most beneficial in preparing them for postsecondary education. Thus, it can be concluded that these features are important to the college choice process and should be continued as an essential part of C.H.A.M.P./GEAR-UP programming.

The data suggested that most students were members of the C.H.A.M.P./GEAR-UP Program for three or more years (88%). Thus, it is reasonable to conclude that most students found the program beneficial. In fact, more than 68%

of the respondents gave high ratings for statements involving educational aspirations, improvement of grades, influences to attend college, college tours, academic skills, and mentoring.

Quality ratings for the major activities provided by the C.H.A.M.P./GEAR-UP Program received high marks by 75% of the respondents. As a group, the college information workshops and the six-week summer program were rated highest.

Finally, the C.H.A.M.P./GEAR-UP Program as a whole was evaluated by the respondents on a scale of 1 to 10. Seventy-nine percent of the surveyed group answered between the between the range of 8 to 10. Therefore, it can be concluded that generally students who participated in the C.H.A.M.P./GEAR-UP Program and responded to the survey enjoyed their experiences, improved their academic skills, and rated highly the effectiveness of the program.

### **Implications**

The purpose of the study was to explore the impact of selected early intervention programs on past and present participants. Thousands of students across the United States have benefited from the academic services and scholarship opportunities offered by Upward Bound Programs, Trio, and C.H.A.M.P./GEAR-UP. The purpose of these programs is to prepare young students for college as early as the seventh grade.

More research should be initiated to better understand how to serve at-risk or inner-city youth with the opportunities for a postsecondary education. Unfortunately, little research has been completed in this area to date. This study could serve as a model for additional research at the local, state, and national levels.

### Recommendations for Future Research

The following recommendations are made for further research:

- 1. More studies involving issues and challenges in pre-college / early intervention programming.
- 2. It is recommended that the survey used in this study be modified to include a question regarding the practices of recruiting minority males. Why are precollege programs attended by a high majority of females?
- 3. A larger study at the regional and national level of early invention programs should be administered. This study only examined the impact of selected early intervention programs. A national study would provide more data and perhaps clearer answers regarding the effectiveness of pre-college programs.
- 4. A longitudinal study needs to be done on an annual basis to look for trends and anticipate future challenges and funding opportunities. Currently, very little if any research has been initiated on the effectiveness of pre-college / early intervention programs.
- 5. A study of the school faculty and administration should be initiated regarding their attitudes and opinions of pre-college/early intervention programs. This study provided attitudes and opinions of students involved in the C.H.A.M.P./GEAR-UP Program. It would be interesting to survey teachers, guidance counselors, and principles regarding their feelings on the impacts of pre-college programs.

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## APPENDIX A

Institutional Review Board Disposition Form

# RECEIVED FEB 0 3 2004

Appendix C

# INSTITUTIONAL REVIEW BOARD DISPOSITION FORM

Thomas A	. Cruz-Soto Jr.		
Principal Inv			Co-Principal Investigator (if applicable)
	hite Horse Pike Apt. D101		
	rincipal Investigator		Address of Co-Principal Investigator
	ed, NJ 08084		•
City, State, an	·		City, State, and Zip Code
(267) 97			
• •	Fax # e-mail address		Telephone # Fax # e-mail address
TITLE OF	The circuitionst imports of	of the	C.H.A.M.P./Gear-Up Program and
RESEARCH	The significant impacts of		Other Paragraphic
	Intervention.		
			•
	ADMINISTRATIVE DISPOSITION	Ň DO N	OT WRITE BELOW THIS LINE
Your claim i	for exemption for the research study	identifie	ed above has been reviewed. The action taken i
indicated belo	ow:		
	_ APPROVED FOR EXEMPTION AS	S CLAIN	IED: CATEGORY #
	AT	ages the A	exempt status of this study must be presented to
	the IRB for approval before the char	nges are	implemented. Such modifications should be sent
•	to the IRB Office at the address above	ve.	
	A DEDOVED FOR FYFMPTION - B	ON TIE	AS CLAIMED. Your claim for exemption does
	not fit the criteria for exemption desi	gnated i	n your proposal. However, the study does meet
	the criteria for exemption under CA	regor'	ζ#
			of this study cannot be made at this time.
*/		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•
	· ·		and a full review will be provided by
	Your proposal does not meet the crite	ria ior e	remption, and a full review will be provided by
	the IRB.		
EXPEDITED	REVIEW:Approved	l	Denied
			Denied
FULL REVD	EW:Approved		Approved with modifications Denied
	, .		•
DENIED:			
	See attached Committee Act	ion Lette	er for additional comments.
	See attached Committee Act	/ / / / / / / / / / / / / / / / / / /	
	J. Junale	<u> </u>	nair TPR
Chair, IRB		Co-Cl	nair, IRB
Date	3/2/07	Date	

# INSTITUTIONAL REVIEW BOARD APPLICATION FOR REVIEW OF RESEARCH

	· •
1	Type of approval review requested (check one): Full Review Expedited Review Review Exemption
2	PRINCIPAL INVESTIGATOR: Thomas A. Cruz-Soto Jr.
3	Educational Leadership
J	TITLE OF RESEARCH: The significant impacts of the C.H.A.M.P./Gear-Up Progr
	and Early Intervention.
· -	and barry index venezation
-	O-INVESTIGATORS:
PU	JRPOSE OF RESEARCH (INDEPENDENT PROJECT, MASTER'S THESIS, ETC.): Master's Thesis
.4.	IF YOU ARE A STUDENT RESEARCHER PLEASE PROVIDE THE FOLLOWING:
•	MAILING ADDRESS: 506 S. Whitehorse Pike Apt. D101 Stratford, NJ 08084
	MAILING ADDRESS: 506 S. Whitehorse Pike Apt. D101 Stratford, NJ 08084  EMAIL: cruz-soto@rowan.edu TELEPHONE NO. (856) 756-5420
	FACULTY SPONSOR NAME: Dr. Burton Sisco
	DEPARTMENT OF SPONSORING FACULTY:Educational Leadership
	PHONE NO. ext. 3717 FAX NO. EMAIL: sisco@rowan.edu
	FACULTY
	SPONSOR SIGNATURE:
	DATE:
	X
5.	HAS THIS RESEARCH PROJECT BEEN CONSIDERED PREVIOUSLY BY THE IRB? YESNO
	IF YES, GIVE DATE OF LAST REVIEW:
6.	SOURCE OF FUNDING (IF APPLICABLE):
	SBR GRANT
	UNIVERSITY GRANTS (INCLUDING FOUNDATION)
	CAREER DEVELOPMENT GRANT
<u>.</u>	EXTRAMURAL FUNDS
	PLEASE INDICATE AGENCY NAME:

7.	ARE YOU WORKING WITH A RESEARCHER FROM ANOTHER INSTITUTION? IF SO, BE AWARE THAT YOUR CO-INVESTIGATOR MUST ALSO SUBMIT YOUR JOINT PROPOSAL TO THE IRB AT THE INSTITUTION THAT EMPLOYS HIM/HER. YES X NO
8.	DOES YOUR RESEARCH INVOLVE ANY OF THE FOLLOWING (CHECK ALL THAT APPLY)?
	X minors X prisoners pregnant women
	use of the investigators current students as subjects
	drugs or other controlled substances
	psychological or physiological stress above the level of normal everyday activities
	misleading or deceiving subjects about any aspect or purpose of the research
	collection of information which deals with sensitive aspects of the behavior (e.g., illegal activity, drug or alcohol use, sexual behavior)
	collection of information which would place subjects at risk of criminal or civil liability if it
	became known
	collection of information which could affect subjects' financial standing, employability, or
	reputation if it became known.
	examination of existing data, documents, or specimens that are <u>not</u> part of the public record children involved in your research without sensitive information about themselves or their families.
	collecting or studying existing data, documents, records, pathological specimens or diagnostic
	specimens, which are publicly available and from which participants cannot be identified by
	anyone other than the investigator(s).
- 	To determine if Early Intervention Programs like the C.H.A.M.P./Gear-Up Program have a positive academic impact on participating youth.
-	•
_	
· -	
10. D	ESCRIBE THE DESIGN OF THE RESEARCH INCLUDING WHAT WILL BE REQUIRED OF SUBJECTS (ATTACH DDITIONAL SHEET IF NECESSARY):
The	e research will review the effectiveness of pre-college programs.
Spe	ecific focus will be given to Rowan University's C.H.A.M.P./Gear-Up
Pro	gram. A survey, literature reviews, and test scores will be used to
pro	ve or disprove finding effectiveness of early intervention.
11. UN	DER WHICH OF THE FOLLOWING CATEGORIES ARE YOU APPLYING FOR EXEMPTION?
,	1. Research conducted in established or commonly accepted educational settings, involving normal educational practices such as, (i) research on regular and special educational instructional strategies, or (ii) research on the effectiveness of the comparison among instructional techniques, curricula, or classroom management methods.

<u>X</u>	2. Research involving the use of social sciences or educational tests (cognitive, diagnostic aptitude, achievement), survey procedures, interview procedures, or observation of public behavior where (i) information is not obtained in such away that the participants can be identified directly or indirectly or (ii) the participants' responses, if they became known, could not place the participant at risk of criminal or civil liability or be damaging to the participants' financial standing, reputation, or employability. (All research involving survey and interview procedures is exempt when the participants are elected or appointed public officials or candidates for public office. However, confidentiality must be maintained when required by federal statute).
	3. Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that participants cannot be identified.
	4. Research and demonstration projects which are funded by a federal agency and determined to be exempt by the agency head and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.
	5. Exemption for collection or study of existing data: research involving collection or study of existing data, documents, records, if these data are non-identifiable and publicly available or information is recorded by the investigator in such a manner that subjects cannot be identified directly through identifiers linked to the subject (codes linking names to data are considered indirect identifiers).
	6. Exemption for study of the department of health and human services: unless specifically required by the statute, research and demonstration projects which are conducted by or subject to the approval of the Department of Health and Human Services, and which are designed to study, evaluate, or otherwise examine:
	(a) programs under the Social Security Act or other public benefit or service programs     (b) procedures for obtaining benefits or services under those programs;     (c) possible changes in or alternatives to those programs or procedures;     (d) possible changes in methods or levels of payment for benefits or services under those programs.

IF YOUR RESEARCH IS GIVEN EXEMPTION STATUS, THE FOLLOWING MUST BE STATED ON A COVER LETTER (ON DEPARTMENTAL LETTERHEAD) ACCOMPANYING ANY SURVEY OR QUESTIONNAIRE:

- 1. A statement that all participation is voluntary
- A statement that you are conducting research and the reason for it (e.g., master's thesis, publication, etc.)
- Purpose of the research what you are investigating
- A statement that all responses will be kept anonymous and confidential
- A statement that participants need not respond to all questions
- If participants are your own students, a statement that class standing will not be affected in any way based on participation
- The name and telephone number of the Principal Investigator (PI) and faculty sponsor (if applicable)

CLAIMS FOR EXEMPTION MAY NOT BE MADE FOR (A) RESEARCH INVOLVING CHILDREN, (B) AIDS-RELATED RESEARCH, (C) RESEARCH INVOLVING SUBSTANCE ON CHILD ABUSE OR (D) RESEARCH TO BE CONDUCTED AT THE V.A. (RESEARCH UNDER THESE Catagories is subject to special federal guidelines.)

# COMPLETE THE FOLLOWING ADDITIONAL QUESTIONS FOR A FULL IRB REVIEW

12.	DESCRIBE THE SUBJECTS WHO WILL BE PARTICIPATING (NUMBER, AGE, GENDER, ETC):
	Subjects will be approximately (30), 12-13 yrs. of age, African-America
	Hispanic youth, both male & female. Adults ages 18-25 of same races an
13.	genders may also be used (5 to 10). HOW WILL SUBJECTS BE RECRUITED? IF STUDENTS, WILL THEY BE SOLICITED FROM CLASS?
	The students involved will be recruited from Cooper's Poynt Family
	School.
14.	WHAT RISKS TO SUBJECTS (PHYSIOLOGICAL AND/OR PSYCHOLOGICAL) ARE INVOLVED IN THE RESEARCH?
	No risks at all. Participation in project is on a volunteer basis.
15.	IS DECEPTION INVOLVED IN THE RESEARCH? IF SO, WHAT IS IT AND WHY WILL IT BE USED?
	No deception tactics will be utilized.
16.	WHAT INFORMATION WILL BE GIVEN TO THE SUBJECTS AFTER THEIR PARTICIPATION? IF DECEPTION IS USED, IT MUST BE DISCLOSED AFTER PARTICIPATION.
	Students will receive information based on purpose of survey. All
	students used are or once were members of C.H.A.M.P./Gear-Up.
17.	HOW WILL CONFIDENTIALITY BE MAINTAINED? WHO WILL KNOW THE IDENTITY OF THE SUBJECTS? IF A PRE-AND POSTTEST DESIGN IS USED, HOW WILL THE SUBJECTS BE IDENTIFIED?
-	To ensure confidentiality, I will be the only person to know the
	identity of subjects. In addition, students will only be identified by
18.	last name on survey. HOW WILL THE DATA BE RECORDED AND STORED? WHO WILL HAVE ACCESS TO THE DATA? ALL DATA MUST BE KEPT BY THE PRINCIPAL INVESTIGATOR FOR A MINIMUM OF THREE YEARS.
••	I will retain data and use results for completion of my thesis. After,
	I will file-data-in-a -locked-office-drawer. Only I and Dr. Burton Sisco
	will have access to data.

Subject: CREWS: IRB approval

Date: Friday, March 12, 2004 5:29 PM

From: Tricia J. Yurak <yurak@rowan.edu>

To: "Burton R. Sisco" <sisco@rowan.edu>, "Tricia J. Yurak" <yurak@groupwise.rowan.edu>

Your IRB application is now approved.

A hard-copy of this notification will be mailed to the Principal Investigator shortly.

Thank you, and good luck with your project.

Tricia J. Yurak, Ph.D. Chair, Rowan University Institutional Review Board Department of Psychology Rowan University Glassboro, NJ 08028

yurak@rowan.edu fax: 856-256-4892 APPENDIX B

Letter of Introduction

#### Dear Concerned Parents and Students:

For the past two years, I have been a part-time graduate student at Rowan University; completing my masters degree in higher education (Administrative Track) program. I am currently serving Rowan University as one of the academic counselors for the CHAMP/GEAR-UP Program, which is a pre-college project involving grades seventh through twelve.

Presently, I am working on my thesis project "The Impact of The CHAMP/GEAR-UP Program" on minority youth. I am asking for your assistance in collecting data for my thesis project. I am requesting that if you or your child has participated in any services of the CHAMP/GEAR-UP Program, that you please fill out or allow your child to complete the instrument.

The survey should take a short time to complete. All responses will be kept confidential. It is my hope that the information collected here will provide valuable insight into the significance of early intervention programs.

If you have any questions about this research project, please feel free to contact my program professor, Dr. Burton Sisco at (856) 256-4500 x 3717. I can also be reached for questions or comments at (856) 756-5420 or via email at <a href="mailto:cruz-soto@rowan.edu">cruz-soto@rowan.edu</a>.

Your contribution is invaluable for this research project to be successful. Thank you in advance for your time and consideration.

Sincerely,

Thomas A. Cruz-Soto Jr., Master Degree Candidate Higher Education (Administrative Track) Program APPENDIX C

Informed Consent Form

### **Informed Consent Form**

Dear Parent / Guardian:

My name is Thomas Cruz, I am a graduate student in the M.A. in higher education (Administrative Track) program. I will be conducting a research project under the supervision of Dr. Burton Sisco as part of my master's thesis concerning the impacts of the CHAMP / GEAR-UP Program on minority youth. I am requesting permission for your child to participate in this research. The goal of the study is to determine how strategy development changes as the child matures.

Each child participant will be ask to complete a 10 to 12 question survey. The questions we pertain to the significant impacts of the CHAMP/GEAR-UP Program on the student's life. To preserve each child's confidentiality only the last names will be used of the individuals. All data will be reported it terms of group results; individual results will not be reported.

Your decision whether of not to allow your child to participate in this study will have absolutely no effect on your child's standing in the CHAMP/GEAR-UP Program. At the conclusion of the study a copy of the thesis will be available upon request to all interested parents. If you should have any questions please feel free to contact me at (856) 756-5420 or you may contact Dr. Burton Sisco at (856) 256-4500 x 3717. Thank you for your time and consideration.

Sincerely,

Thomas A. Cruz-Soto Jr.

Please Indicate whether or not you wish to have your child to participate in this study by checking the appropriate statement below and returning this letter to me no later than January 31, 2004.

### Please Check One of The Following:

( ) I grant permission for my		to participate in this study
	(Name of Student)	<del></del>
( ) I do not grant permission for		to participate in this study
	(Name of Student)	·

### **Informed Consent Form**

### Participants over the age of 18

I agree to participate in a study entitled "Impacts of the CHAMP/GEAR-UP Program Early Intervention Program". This project is being overseen by the professor of educational leadership department; Dr. Burton Sisco and conducted by Thomas A. Cruz-Soto Jr. (Graduate student at Rowan University). The purpose of this study is to determine if the CHAMP/GEAR-UP Program has made a positive academic impact on the students it has served. The data collected in the distributed survey will be combined with other researched data and written up in the final draft of the thesis.

I understand that I must accurately complete the survey to the best of my knowledge. Further, I am aware that there are **NO** physical of psychological risks involved in this study. Final, I know that my participation in this study can be withdrawn at anytime it I choose.

If any additional concerns regarding participation arise at anytime, the participant can contact the professor of the educational leadership department; Dr. Burton Sisco at (856) 256-4500 x 3717 or the conductor of the study Thomas Cruz-Soto at (856) 756-5420.

X		
(Signature of Participant)	-	(Date)
•		•
X		
(Signature of Participant)		(Date)

## APPENDIX D

Institutional Approval Letters

### COOPER'S POYNT

Professional Development School 3<sup>rd</sup> & State Street, Camden, NJ 08102 Fax # (856)964-3715 & 756-0034 (856)966-5370

Sandra Sims-Foster Principal Patricia Scott Supervisor

Alanda Koon Vice Principal

February 23, 2004

To Whom It May Concern,

I am writing this letter in support of Mr. Thomas A. Cruz-Soto Jr., regarding his research on the "Impacts of Early Intervention Programs". Mr. Cruz has been working with the C.H.A.M.P./GEAR-UP Program for over four years and has been actively involved with Cooper's Poynt student grades 6<sup>th</sup> through 8<sup>th</sup> for the past three years.

I has reviewed and received copies of the survey and permission slips that will be distributed to the students cooperating in his research and he has my full approval to do so. I feel that this is an excellent study and Mr. Cruz will do a superb job in reporting his findings accurately and effectively. Should you need any further information, please do not hesitate to contact me at (856) 966-2473.

Sincerely,

Mary Ann Alexander- Wilford

Maryann Olyande-Wilfon, Gudance Dept.

## WOODROW WILSON HIGH SCHOOL 3100 FEDERAL STREET CAMDEN, NJ 08105

February 27,2004

To Whom It May Concern:

I am writing this letter in support of Mr. Thomas A. Cruz- Soto Jr., regarding his research on the "impact of Early Intervention Programs". I have gotten to know Mr. Cruz over the past three years at Woodrow Wilson High School, as he has been working with the C.H.A.M.P./GEAR-UP Program at our school and I know he has great integrity when working with our students.

I have reviewed and received copies of the survey and permission slips that will be distributed to the students cooperating I his research and he has my full approval. This is an excellent study and Mr. Cruz will do a superb job in reporting his findings accurately and effectively. Should you need any further information, please contact me at (856) 966-5227.

Sincerely,

Mrs. Lynn Sternberg Guidance Counselor

# APPENDIX E C.H.A.M.P./GEAR-UP Pre / Post Tests

### C.H.A.M.P. Junior Summer Inventory 2003

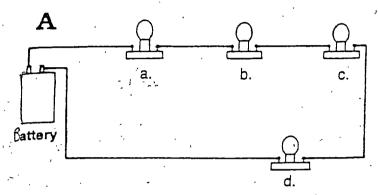
### **Directions**

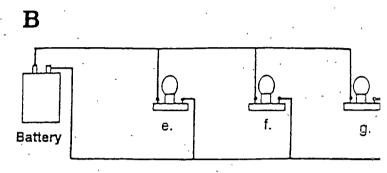
Use the machine scorable answer sheet and a pencil to record your answers to the following questions. Answer as many of the questions as you can. It is OK to leave a blank for the items that you cannot answer. But, do try to answer as many as you can. Be sure to fill in your name and your Social Security Number on the answer sheet. Thanks.

Th	hanks.	reality (variber on a	
1.	The Pinelands is a forest made up of mo the forest that way? A. rich fertile soil B. dry sandy soil	ostly pitch pine and or C. cold winters D. not much under	
2.	Why are plants like cranberries and blue Pinelands? A. They grew naturally in the pinelands B. They were the most valuable crops to C. They were easy plants to harvest D. Farm animals liked to eat these plants	grow grow	rmed) in the
3.	A. soil that has a lot of clay	ve through it (drain) m C. soil that has a lot of D. soil with a lot of dec	coarse dry sand
4.		g to remember if you of start looking for fool of start yelling for help	d ,
5.	psychrometer. What is the person probal		meter, and  D. vegetation
6.			
<b>7</b> :	Why do carnivore plants like the sundew A. to keep the insects away from the see B. to get nutrients from the insects C. to prevent the insects from eating ther D. to use the insects in producing more p	ds n	insects?

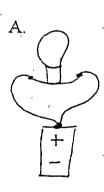
8.	What type of c A. stratus		e thunderstor C. cumulon		D. cumulu	S
9.	If you are facir A. 360	ng directly ea: B. 270	st, what beari C. 180	ng will you D. 90	r compass read	?
10.	What direction A. North	is at the top B. East	of a map? C. South	D. West		
i	What is the nam nto its elements A. distillation	?	· -	. ,-	to break a wate electrolysis	r molecule apart
·	Which of the foll A. 2 hydrogen a B. 2 hydrogen a C. 1 hydrogen a D. 2 hydrogen a	toms and 2 o toms and 1 o tom and 2 ox	xygen atoms xygen atom ygen atoms	ms make u	p water?	
	Which type of so A. top soil	oil holds the n B. clay soil	nost water? C. roo	cky soil	D. sandy s	oil
· t	What is the nam emperature which is precipitation	ch is below th	ne boiling poir	nt of water?		
, C	Particles of wate alled?  a. molecule tensions surface tensions.	sion	d to each othe C. adhesive D. magnetic	tension	cial way. What i	s the attraction
th	What do we call nen can enter of a. fossils		ly?	·	water through  D. humus	the soil and
А	The tapetum is lot tapetum do?  It clean the dust  It allow the anim	out of the ey	e	,	e eye its color	it does the
A B C	What is the funct regulate the ap focus light on carry impulses protect the inn	mount of light the retina to p to from the eye	that enters the chair of the chair of the chair of the brain of the brain of the chair of the ch	•		

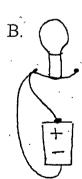
- 19. What is the function of the iris in the eye?
  - A. regulate the amount of light entering the eye
  - B. focus light on the retina to give clear vision
  - C. carry impulses from the rods and cones
  - D. protect the inner part of the eye
- 20. Which circuit is a parallel circuit?

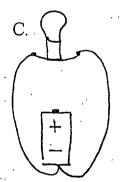


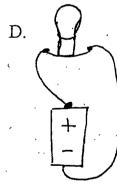


- 21. In the circuit above if bulb C burns out what will happen?
  - A. only bulbs a and b will go out
  - B. only light bulb d will go out
- C. light bulbs a, b and d will go out
- D. light bulbs a b and d will stay lit
- 22. Which circuit will light the bulb?









- 23. In math what is the first step in the 4-step plan to problem solving?
  - A. solve
- B. plan.
- C. Skip
- D. explore/examine
- 24. Proofread this sentence: Chris and I does work at the mall. We are there each Tuesday. Which word needs to be corrected?
  - A. does
- B. are
- C. there
- D. Tuesday

25.	Two students oppos code to end. What ty their principal to cha	pe of letter would th	their school. They we ey need to write if th	ould like the dress sey wanted to convince	<u> </u>
٠	A. declarative	B. narratīve	C. persuasive	D. fictional	
	The statement, "I am a A. simile B. ex		an example of a/an C. proofreading er		
) (	Choose the best support many reasons why A. I learned to read what it learn interesting the C. My brother Danny red. The library is not fair People write songs a a poem or song?	I like to read. nen I was six years of a lings from reading be addeduced to the more than I do not seen and my house.	old. Doks.		
•	A. persuasive	B. informational	C. experimental	D. expressive	
E	What is a rubric?  A. a checklist for gradir  B. a way to proofread a  C. a comic strip with th  D. a way to compare or	an essay for errors ree pictures	ent		
	What is the last step in . problem solving		? C. publishing	D. correct errors	
	•			•	

			C.H.A.M.P.	Resider	ntial Su	ımmer	Inventory - 2003	
Dire	ctions:	Use the machine scorable answer sheet and a pencil to record your answers to the following questions. Be sure to fill in your name on the answer sheet and your social security number.						
		blan	ver as many o k for the items y questions as	that yo	u canr	not ans	ou can. It is OK to wer. But try to an	leave a swer as
·1.	wizard A. writ	t help te a te	outer program you do? erm paper esume	, Micros	C.,ma	ake a t	ch of the following able k réport	g will a
2.	A. org	anize	e following wil data and do deers in the corr	calculati	ons	C. ch	o you do? eck spelling and o t pictures in a rep	
3.	Which large a A. Exc	amour	e following con nts of informat B. Word	mputer   tion and C. Acc	report	ing abo	est for keeping re out it? werpoint	ecords of
4.	What people A. Exc	?	m would be b	•	creatin ndows		esentation to a gro	oup of
5.			am might help B. Access			web pa	ge? D. Powerpoint	
6.	Which A. Exc		am is best for B. Access	anaļyzi	ng futu C. Wo		nings of a compa D. Powerpoint	ny?
7.	A. con B. allov C. con	nects ws the nects	hyperlink do to another we computer to to your friend the fastest cor	b page, read pic s on the	ctures intern	et	,	
B	Which	of the	following is th	ne best	expres	sion of	a thesis stateme	nt?

- A. I think that education is very important.

  B. Education is important throughout all people's lives.

  C. In my opinion, education is the most important thing in life.

  D. Education is probably important.

9.	Which of the following is a comma splice?  A. We went to the movies and then went to the mall.  B. We went to the movies; then we went to the mall.  C. We went to the movies, and then we went to the mall.  D. We went to the movies, then went to the mall.
10.	Which is the proper order for an essay? A. introduction, body, conclusion B. body, introduction, conclusion C. conclusion, introduction, body D. capitalization, punctuation, spelling
<b>11.</b> .	What is the most important and overlooked step in writing?  A. brainstorming  C. writing and grading  B. collecting information  D. editing and revising
12.	A thesis statement expresses the main thought of an essay. Which of the following expresses the main thought of a paragraph?  A. journal entry  C. web statement  B. topic sentence  D. pre write sentence
13.	Who is the current poet laureate of New Jersey?  A. Amiri Baraka  C. Allen Ginsberg  B. Sonia Sanchez  D. Walt Whitman
14.	What is the cultural origin of the Haiku style of poetry? A. Chinese B. Hindu C. Japanese D. African
15.	What is the title of Tupac Shakur's book of poems?  A. The Poems of Tupac Shakur  C. In the Event of My Demise  D. The Rose That Grew From Concrete
16.	What famous poet wrote the lyrics for the movie, Poetic Justice, read by Janet Jackson?  A. Maya Angelou  B. Nikki Giovanni  C. June Jordan  D. Sonia Sanchez
17.	What major arts movement is Langston Hughes associated with?  A. The Black Arts Movement  B. The Beat Generation  C. The Harlem Renaissance  D. The Underground
18.	Poetry and music are alike in many ways. Which of the following is one of those ways?  A. thesis statements  B. scales  C. pictures  D. rhythm

19.	On the verbal SAT's how many points are you penalized for a question that is not answered correctly.  A. 1/4 point  C. 3/4 point  E. There is no penalty
	B. 1/2 point D. 1 point
20.	On the verbal SAT's how many points are you penalized for a question you leave blank.  A. 1/4 point  C. 3/4 point  E. There is no penalty
	B. 1/2 point D. 1 point
21.	On the verbal SAT's what is a good rule for when to guess an answer?  A. Guess if you cannot eliminate any answers.  B. Guess if you can eliminate one choice.  C. Guess if you can eliminate at least two choices.  D. Guess if you can eliminate at least three choices.  E. Never guess.
22.	When water dissociates it forms equal amounts of hydrogen and also produces hydroxyl. What type of atom is the hydroxyl?  A. ion B. oxygen C. free D. vapor
23.	What does chromatography do?  A. mixes components in a random array  B. causes a chemical reaction to occur  C. separates different components of biomolecules  D. measures the number of molecules in a substance
24.	pH is a measure of the concentration of hydrogen in water. How can it be defined chemically?  A. log of hydroxyl concentration  B. log of the hydrogen concentration  C. negative log of the hydrogen concentration  D. negative log of the hydroxyl concentration
25.	The spectrum of anthocyanins indicated that the extract from cranberries absorbed more light at pH 1 than at pH:  A. 2 B. 3 C. 4 D. 5
26.	When performing a folch extract of sewage sludge, the lower phase of the extract mainly consists of:  A. chloroform  B. methanol  C. hydrogen  D. water
27	
27.	A typical lab report follows a form for writing, it includes <u>aim, results, discussion and conclusion</u> . Which of the following must also be included?  A. acid/base readings  C. equations  B. method  D. equipment

28. If you measure the toxicity of something, what are you measuring?

A. how poisonous a substance is

C. the pH of the substance

B. how long it takes to die

D. the color of the substance

29. A sales clerk's basic salary is \$21,000. The clerk earns a 6% commission on total sales. How much must the clerk to earn \$30,000 total salary?

A. \$15,000

B. \$ 1,500

C. \$150

D. \$150,000

If  $x^2 + 10x + c$  is a perfect square trinomial, what is the value of c? 30.

A. 10

B. 25

C. 50

D. 100

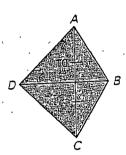
31.. The area of the kite is 160 square inches. Find the length of BD.

A. 10 inches

B. 20 inches

C. 8 inches

D. 16 inches



32. The measure of each interior angle of a regular polygon is 144 degrees. How many sides does the polygon have?

A. 8

B. 9

C. 10 <sup>-</sup>

D. 12

Which expresses the area of a square with a perimeter of 30cm? 33 B. 15cm<sup>2</sup> C. 30cm<sup>2</sup> A. 225cm<sup>2</sup>

D. 56.25cm<sup>2</sup>

34. What number is the solution for x in the equation 2x + 3 = -7

A. -2

B. -5

C. 2

D. 5

What is the value of x in this equation:

A. 12

B. 20

C. 16

D. 25

## C.H.A.M.P. Summer Inventory - 2003

Directions:		Use the machine scorable answer sheet and a pencil to record your answers to the following questions. Be sure to fill in your name on the answer sheet and your social security number.					
	-	blank for the	e items that y		swer. Bu	It is OK to leave at try to answer a	
1.				vegetation in angiosperms			•
2.		is an examp safras		vegetation in C. cinnam			
<b>3</b> .	Which A. dirty		ving tells you dar water	•		ly in the Pinelan D. clay soil	ds?
4.		natural ever	nt is the grea B. earthqua	test threat to akes C. f		ands? D. thunder stor	ms
5.	-	<u>manmade</u> th an sprawl		eatest threat age C. p			ımes
6.		type of soil o		elands have? andy C. b	asic clay	D. basic sa	ndy
<b>7.</b> .	Which A. build		ing is a natu	ral part of a w · C. dams	ater she	d? D. vegetation	`
8.	Which A. trees			the most wat C. soil	er? D. bea	aches	
9.	topogra	aphic map?		r	6	ds shown on a	
10.	•		•	e build a rese C. boating		d drinking water	
11.			s categorize B. by flow	d? C. by size	D. by	ocation	
12.	Which t	• •	tion is most li B. oil	kely to be fou C. algal blo		cceans? D. radioactive	

	·
13.	Why are grasses on sand dunes important? A. they provide shelter and food for animals B. they provide a place for fish to lay their eggs C. they keep people off a dangerous part of the beach D. they clean the sand and help keep trash off the beach
14.	If you were lost in the woods and found a stream how could you tell if it was salt water or fresh water?  A. with your thermometer  B. the type of fish  C. ask someone  D. the plants near the shore
15.	Which of the following is <u>not</u> true about algae?  A. They provide food for animals.  B. They can survive without sunlight.  C. They can show if there is pollution in an area.  D. They create oxygen animals can breathe.
16.	What is spartina?  A. a common salt marsh plant  B. a rare salt marsh plant  C. a grass found on the beach  D. a freshwater plant
<b>17.</b> :	Which of the following would you <u>not</u> find in a bog or swamp environment?  A. pitcher plant B. sweet pepperbush C. blueberry bush D. red maple
18.	When you talk about a bog or swamp what does the word "succession" mean?  A. the process by which a swamp becomes a hardwood forest B. the order in which plants die off to support the life cycle C. how fast the water flows in and out of the swamp D. the drying out of a swamp to make farmland
19.	Which food for people is grown in a bog? A. corn B. tomatoes C. strawberries D. cranberries
20.	Why is the salt marsh an important part of nature?  A. it produces food products for people to eat  B. it produces food for things that live in the ocean  C. it is a good source for new farms  D. it is a good place for people to build new houses.
21.	Which of the following programs is the operating system for many personal computers?  A. Excel B. Windows C. Word D. Notepad

22.	How do the keyboard, scanner, and digital camera help a person use the computer?  A. The can be used to enter information into the computer.  B. They are devices to get information out of the computer.  C. They allow a person to get on the internet.  D. They control the speed that the computer responds to commands.
23.	Which of the following computer programs could be used to keep records of large amounts of information?  A. Excel B. Word C. Access D. Powerpoint
24.	What program would be best for creating a presentation to a group of people?  A. Excel B. Access C. Windows D. Powerpoint
<b>25</b> .	What is a search engine?  A. power source for a computer
26.	Which of the following is the best expression of a thesis statement?  A. I think that education is very important.  B. Education is important throughout all people's lives.  C. In my opinion, education is the most important thing in life.  D. Education is probably important.
27.	Which of the following is a comma splice?  A. We went to the movies and then went to the mall.  B. We went to the movies; then we went to the mall.  C. We went to the movies, and then we went to the mall.  D. We went to the movies, then went to the mall.
28.	Which is the proper order for an essay? A. introduction, body, conclusion B. body, introduction, conclusion C. conclusion, introduction, body D. capitalization, punctuation, spelling
29.	What is the most important and overlooked step in writing?  A. brainstorming  C. writing and grading  B. collecting information  D. editing and revising
30.	What is a self portrait?  A. any picture that looks like someone else B. any realistic or symbolic picture of yourself C. a pencil sketch of another person's face D. the painting that shows the events of your life

31.	Why is contrast important in drawing?  A. It creates the look of volume and depth.  B. It flattens everything out.  C. It makes the drawing less realistic and more artistic  D. It helps the eyes look at the picture from left to right.
32.	What is a collage? A. small university C. three dimensional sculpture B. picture with two vertical lines D. materials pasted on a surface
33.	What is the difference between something that is 2 dimensional and something that is 3 dimensional?  A. nothing; they are the same B. 2 dimensional is flat; 3 dimensional has volume C. 3 dimensional is more interesting D. 2 dimensional uses two colors; 3 dimensional uses 3 colors
34.	Any artist can be creative. What does it mean to be creative?  A. to be inventive and unique  B. to copy the works of great artists  C. to produce art that people like  D. to show great skill in painting
35.	A sales clerk's basic salary is \$21,000. The clerk earns a 6% commission on total sales. How much must the clerk to earn \$30,000 total salary?  A. \$15,000 B. \$1,500 C. \$150 D. \$150,000
36.	If x <sup>2</sup> +10x+c is a perfect square trinomial, what is the value of c? A. 25 B. 10 C. 50 D. 100
37.	The area of the kite is 160 square inches. Find the length of BD.  A. 10 inches B. 20 inches C. 8 inches D. 16 inches
88.	The measure of each interior angle of a regular polygon is 144 degrees. How many sides does the polygon have?  A. 8 B. 9 C. 10 D. 12
9	Which expresses the area of a square with a perimeter of 30cm?  A. 225cm <sup>2</sup> B. 15cm <sup>2</sup> C. 30cm <sup>2</sup> D. 56.25cm <sup>2</sup>
0. W	hat number is the solution for x in the equation $2x + 3 = -7$ A2 B5 C. 2 D. 5

## APPENDIX F C.H.A.M.P./GEAR-UP Program Survey

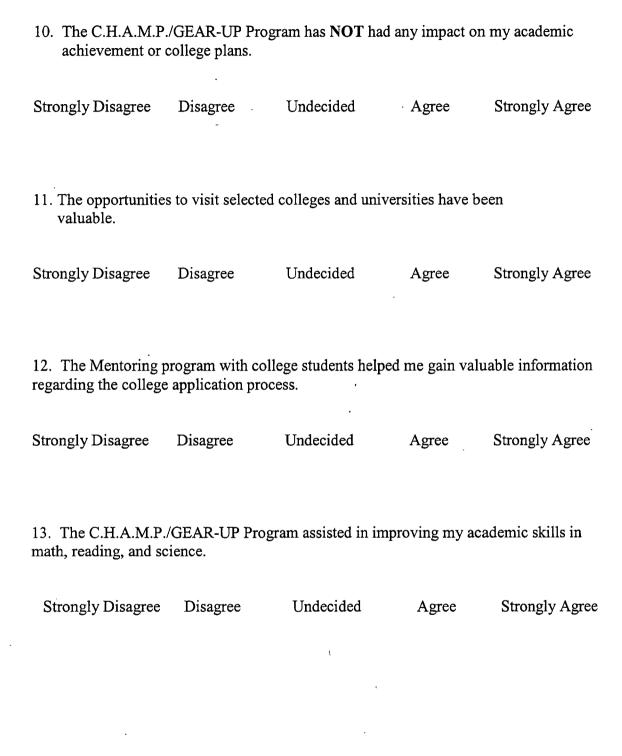
## **SURVEY**

**Objective:** The following survey is being used to conduct research on the effectiveness of the C.H.A.M.P./Gear-Up Program.

	structions: nfidential.	Pleas	se compl	ete the	followir	ng ques	tionnai	re. All	answers will be kept
	1. What i	s your	gender?	Ma	ale	I	Temale	<u>,                                     </u>	
	2. How v		you desc America Asian African A Hispanic Caucasia Other	n India	n or Ala	aska Na	tive		
	3. Your d	ate of	birth and	l year?					
4.	How many	y years	s did you	partici	pate in t	the pro	gram?		
	>1	1	2	3	4	5	6		
5.	At what gr	rade le	vel did y	ou beg	in the pr	rogram	? Pleas	e circle	one of the following:
	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>t</sup>	h	9 <sup>th</sup>	. 10	th	11 <sup>th</sup>	12 <sup>th</sup>

4.

5.



6. What is the highest educational level of your parent(s)? Please check appropriate section for each parent. Mother **Father** Less than high school Less than high school High School Only High School Only Associates Degree Associates Degree Bachelor's Degree Bachelor's Degree Graduate or Professional Graduate or Professional Other (Certification) Other(Certification) Listed below are statements which reflect attitudes of CHAMP/GEAR-UP students. For each statement circle whether you Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD) or are Undecided (UD). 7. The C.H.A.M.P. / GEAR-UP Program influenced my educational aspirations. Strongly Disagree Disagree Undecided Agree Strongly Agree 8. The C.H.A.M.P. / GEAR-UP Program helped improve my grades. Strongly Disagree Disagree Undecided Agree Strongly Agree 9. My desire to attend college was directly influenced by the C.H.A.M.P./GEAR-UP Program. Strongly Disagree Disagree Undecided Agree Strongly Agree

14. Listed below are the major activities provided by the C.H.A.M.P./GEAR-UP Program to assist you in college readiness. Please rate the quality of each activity by circling the appropriate responses:

	Excellent	Very Good	Good	Fair	Poor
a) College Admission Information:	E	VG	G	F	P
b) Financial Aid Workshops	E	VG	G	F	P
c) College Tours	E	VG	G	F	P
d) Personal Counseling	E	VG	G	F	P
e) Scholarship Information	E	VG	G	F	P
f) Individual Tutoring	E	VG	G	F	P
g) GEPA Prep Classes	E	VG	G	F	P
h) HSPA Prep Classes	E	VG	G	F	P
i) SAT Prep Classes	E	VG	G	F	P
j) College level Courses	E	VG	G	F	P
k) College Applications	E	VG	G	F	P
l) Mentoring	E	VG	G	F	P
m) Six-week Summer Programs	E	VG	G	F	P
n)Residential Campus Program	- E	VG	G	F	P

15. On a scale of 1 to 10: How would you rate the overall effectiveness of the C.H.A.M.P./GEAR-UP Program on your readiness for a post secondary education.

(Circle one)

Lowest			•						Highes	t
1	2	3	4	5	6	7	8	9	10	

Thank you for your time and participation in completing this survey.

Sincerely,

Thomas A. Cruz-Soto Jr.

	,	