#### CHAPTER 3

## Methodology

## Introduction

The researcher assessed the perceived effects of attendance policy and attendance program on high school student attendance in Newport News Public Schools Division. The causalcomparative study concentrates on high school attendance, perceptions of the attendance policy/program, and the effectiveness of Saturday Redemptive School after one year of implementation. The study focuses on high school attendance due to the fact the school division decided to allocate and reallocate a majority of the attendance resources and funding from the elementary and middle school to the high school attendance program. The Outcome Accountability Report identified Newport News Public Schools 9 - 12 graders who were absent 10 days or less from school as scoring 11 percent lower than the state average of 66 percent. This data pointed out an apparent problem in the high schools that assisted the school district in focusing on high school attendance.

#### Subjects

Newport News Public Schools has a total student population of 32,000 students. The School district racial breakdown consists of 55 percent of its students being African-American,

43 percent white, and 2 percent other. Newport News Public Schools has 4 early childhood centers, 28 elementary schools, 9 middle schools, 5 high schools, and 3 alternative schools.

The population of the study is the total high school student population of approximately 4236 students. The total high school student population is used to gather data regarding high school student attendance.

A stratified random sample of the total high school student population was chosen to participate in a survey that described their perceptions of the school division's attendance policy and attendance program (SRS). The sample consisted of 20 percent of the male and female student population. Parents of the identified student sample participated in the survey to collect data regarding their perceptions of the attendance policy and program. A stratified random sample of 20 percent of all high school teachers participated in the survey to determine their perceptions of the new attendance policy and attendance program. A stratified random sample was selected to assure that identified sub-groups in the population were adequately represented in the sample.

The Saturday Redemptive School accommodated 549 high school students for the 1996-1997 school year. The total Saturday Redemptive School population is used as the sample to determine if the participants' pass rate is effected by SRS.

#### Instrumentation

Attendance data was gathered from the attendance records of high school students. The data was collected and arranged on tables displaying attendance from SY96 and SY97. The tables were categorized by high school and district.

Student, parent, and administrator surveys developed by Woog (1992) were revised to meet the needs of this causal-comparative study. The instruments were tailored to produce data from students, parents, and teachers that describe their perceptions of the attendance policy and program in Newport News Public Schools.

The student survey consisted of sixteen questions completed by students identified in the stratified random sample. The student survey questions were answered by utilizing a five part Likert scale ranging from strongly agree to strongly disagree.

The parent survey consisted of eighteen questions completed by the parents of the identified students using a five part Likert scale ranging from strongly agree to strongly disagree.

The teacher survey consisted of eighteen questions answered by high school teachers identified in the stratified random sample of the study using a five part Likert scale ranging from strongly agree to strongly disagree. The student surveys were identified as male or female by the participants checking male or female on the survey instrument (See Appendices D Surveys).

# Reliability/Validity

Students, teachers, parents, school administrators, and central office administrators in the field of attendance reviewed the revised survey instruments. Feedback was given on each question concerning three areas of interest. The areas of focus were appropriateness, clarity, and association to the attendance policy (See Appendix E). Each individual provided feedback on each question in order to verify the content validity of the survey. The survey was given to a small sample of students, parents, and teachers to determine consistency of each question with their responses. The feedback provided information to the researcher on the intended data collection. The feedback further assisted the researcher when selecting and revising the survey instrument in testing for reliability. Final revisions to the student, parent, and teacher survey were made after receiving feedback and input from the various groups. A final instrument was developed and administered to gather data for this evaluative study.

#### Data Collection Procedures

The researcher gained permission to review the attendance records of high school students by completing Newport News Public Schools' procedures for approval of research proposal form (See Appendix F). After gaining permission from Newport

News Public Schools, the researcher reviewed the attendance records for SY96 and SY97 (See Appendix G). The data collected were placed on charts identified by school and district. After collecting the attendance data, the researcher loaded the data into the SPSS computer program for statistical calculations.

The student survey was identified by having each student completing the survey check male or female on the survey instrument. The researcher was granted approval from Newport News Public Schools to include school division students as subjects in the study. The researcher wrote a letter to the five high school principals seeking permission to place a survey instrument in selected teachers' boxes (See Appendix H). Permission was granted to survey students within the five high schools by each high school principal.

The researcher developed and attached a cover letter to accompany each survey instrument (student, parent, and teacher). The cover memo of the survey answered the following questions for each group of subjects participating in the survey portion of the study (See Appendix I):

- (a) What is the study about?
- (b) Who wants to know?
- (c) Why do they want this information?
- (d) Why was I picked?
- (e) Will this be difficult?
- (f) How long will it take?
- (q) Will I be identified?

- (h) How will this be used?
- (i) When should I do it?

The survey packets consisting of a cover memo and the survey instrument were distributed to the stratified random sample of students, parents, and teachers. The packets were distributed by the researcher to the attendance officer of each of the five high schools. The researcher placed a survey instrument in selected teachers' boxes located in the main office for their completion. The student subjects were asked to return their completed survey instrument to their homeroom teacher. The homeroom teacher was instructed by the attendance office of the school to deliver the survey instruments to their office. Parents were asked to mail their completed surveys to their child's attendance office. A pre-stamped return envelope was included in the mailing. A two-week time period was given to parents to return the survey. Teachers were instructed to return their completed survey to the attendance secretary. Within one week, the attendance secretary had teacher subjects place their survey in a large envelope. The researcher collected the survey instruments from the main and attendance offices of the five high schools. The survey instruments were analyzed by the researcher resulting in a descriptive report outlining the percent of responses, mean scores, and standard deviations from each group of respondents.

The researcher selected the following research question for the survey:

What are the perceptions of students, parents, and teachers regarding the new attendance policy and attendance program after one year of implementation?

Saturday Redemptive School records from the Administrative and Alternative Services Department were reviewed by the researcher to collect data from the identified sample. The data was arranged in two categories, first semester and second semester. Three sub-headings were included on a table: students assigned, students attended, and students redeemed. Data from the tables were entered into the SPSS statistical package for Chi-square calculations.

## Statistical Analyses

#### **ANCOVA**

The researcher employed a 2-way ANCOVA to compare the means from students in grades 9, 10, and 11 during year 1995-1996 to identical group of students in grades 10, 11, and 12 during year 1996-1997 and gender (male, female) after adjusting for initial differences in attendance for year 1995-1996. To address the three research questions previously articulated, and three non-directional null hypotheses (two to assess main effects and one for interaction, a two-way ANCOVA was employed to test for significant interaction of variables:

#### Null Hypotheses

### Main Effect

(a) There is no statistically significant difference among grade level (9, 10, 11 for year 1995-1996) with respect to year 1996-1997 high school attendance after adjusting for initial differences on the 1995-1996 high school attendance.

### Main Effect

(b) There is no statistically significant difference between gender (male, female) with respect to year 1996-1997 high school attendance after adjusting for initial differences on the 1995-1996 high school attendance.

## Interaction

(c) There is no statistically significant interaction between grade level (9, 10, and 11 for year 1995-1996) and gender (male, female) with respect to year 1996-1997 high school attendance after adjusting for initial differences on the 1995-1996 high school attendance.

The independent variables (grade level and gender) are on the nominal scale of measurement and the dependent variable (1996-1997 high school attendance) is on the interval scale of measurement. The researcher employed a pre-determine alpha level of .05 in this 3  $\times$  2 factorial design to determine

the significance of each hypothesis in this evaluation study.

There was a significant main effect for the hypothesis. A Dunn's/Bonferroni t post-hoc-test was employed to determine where among the three levels of the independent variables (i.e. grade levels) the differences lie. The 1995-1996 high school attendance was selected as the covariant because the 1995-1996 twelfth grade students graduated from the school district thereby omitting their data from the study.

## Descriptive Report

A descriptive report addressed the second research question. The descriptive report identified the frequency distribution of each number and the percent of respondents selecting each point on the Likert scale. The descriptive report was also given an overall average rating for each survey question. Data from the student, parent, and teacher survey were collected and organized on the descriptive report.

### Chi-square

To address the third research question, Chi-square, a nonparametric statistical test, was used in this evaluation study to determine the effect of the Saturday Redemptive School on student participants (male, female) percent of pass rate. A nonparametric statistical test was used because the researcher was studying the percent of frequencies of males and females passing. The Chi-square test was used to determine the

statistical significance between the observed and expected frequencies difference (passes, failures) at the pre-established alpha level of .05.

## Summary

Chapter Three presented the subjects of the study, which included the high school student population of Newport News Public School. Varied instrumentation described in the chapter were surveys, various charts, and tables. The procedures for collecting data included survey completion and reviewing student records. Chapter Three concluded with an explanation of the statistical analyses: ANCOVA (2-way), descriptive report, and Chi-square. Chapter Four will present an analysis and interpretation of the results.