CHAPTER V

Summary and Recommendations

The current belief that fashionable clothing worn to school by students influences their attitude and behavior is the major impetus behind the adoption of stricter dress policies, including uniforms (Behling, 1994). The purpose of this study was to determine the relationship between the implementation of a mandatory uniform dress policy and average attendance, discipline indicators, grade point average, and self-esteem. This chapter will summarize the findings, discuss limitations and implications, and make recommendations for future avenues of research.

Summary

Data collected as part of this study do not support the notion that students who wear uniforms will come to school more, behave better, get better grades, or feel better about themselves. For example, uniforms did not improve average attendance for students in sample A (students enrolled as 9th graders in 1997-98 who attended William H. Ruffner Middle school for three consecutive years from 1994-95 through 1996-97 or sample B (students form sample A who were suspended as 6th graders in 1994-95.

Average Attendance

Average attendance for study participants in sample A showed a significant decline

during the three years from 94.9% to 92.6% (Tables 5-7). Average attendance for

sample B went up from 91.8% to 92.1% between 1994-95 and 1995-96, and then

dropped to 91.9% between 1995-96 and 1996-97. These changes were not significant

(Tables 20-21). Further, there were no real significant interactions between race and

gender for attendance.

<u>Discipline Indicators</u>

The impact of uniforms on discipline indicators and grade point averages showed

mixed results. The number of referrals, rule violations, and suspensions decreased

significantly during the first year of uniform implementation (1995-96), and then rose

significantly in the second year of implementation (1996-97) for sample A (Tables 10 -

16). Sample B displayed a similar pattern of a decrease during the first year and an

increase in the second year, but the mean changes were not significant (Tables 22 -

27). In both samples, Blacks were disciplined more often than whites and males were

disciplined more often than females.

<u>Grade Point Average</u>

Grade point averages for sample A remained the same between 1994-95 and 1995-

96 and then dropped significantly between 1995-96 and 1996-97 (Tables 17-19).

Grade point averages for sample B participants increased significantly between 1994-

95 and 1995-96, and then declined significantly between 1995-96 and 1996-97 (Tables

29-30).

While results from the Uniform and Self-esteem (USE) Scale indicated that respondents felt that uniforms had a negative impact on their overall self-esteem, with a rating of 2.68 (Table 31) no inferences or further conclusions can be drawn about the impact of uniforms on self-esteem because no pre-assessment had been done. This alludes to some of the limitations of this study.

Limitations

There were several intervening variables which could have had an adverse effect on the results of this study. Limitations pertinent to this study include leadership, sample size, and the creation and administration of the USE scale.

Leadership

The creation and management of an organization's culture is the only thing leaders do of any real importance according to Schein (1996). If this is true, then it is conceivable that the steps taken by the new principal to implement uniforms were as important as the uniforms themselves. If we look at the use of uniforms as a symbolic cultural metaphor (Morgan, 1996; Bolman & Deal, 1991) and as a tool used to re-engineer this school's culture and subsequent climate, then we could hypothesize that changes in student behavior and outcomes could have resulted from a change in leadership.

Historical Observations

Paliokas and Rist (1996) suggested that any study measuring the effects of a uniform policy should take a historical series of observations and gather data from experimental and control groups (p. 37). In order to reduce the impact that leadership could have on the internal validity of the study, the researcher limited the scope of the historical observations to one administration. The researcher could have collected data on all students present each year, regardless of their length of time in the school. However, this would have limited the researcher's ability to isolate the influence that uniforms may have had on student behaviors and outcomes because the treatment was not uniformly applied. In an attempt to minimize leadership as an intervening variable and ensure equal exposure to the treatment, problems related to sample size emerged.

Sample Size

Sample A

In order to ensure that the cohorts used in this study were cohesive, the researcher imposed the criteria that only those students who remained in the building during one administration, for three consecutive years (1994-95 to 1996-97) who were also 9th graders in 1997-98, would be considered for participation. The net result was a sample size of 146 students in sample A. According to Krejcie and Morgan (1970), a representative sample for a population ranging in size from 355-421 (Appendix G) should contain at least 186-201 study participants, which was not the case (pp. 607-610).

<u>Sample B</u>

    Sample size also proved to be a critical issue when comparisons were drawn

between-subjects based on race and gender for sample B which was created by

applying the criteria of earning at least one suspension as a 6th grader in 1994-95 to

sample A. Sample B only contained 35 students with five white males and one white

female. The size and composition of this sample violated the assumption of normal

distribution when a repeated measures analysis is employed (Howell, 1997). It

probably would have been better not to report any findings using a RMANOVA

statistical analysis or to have used some other non-parametric statistical analysis.

<u>Sample C</u>

    It is also quite possible that the number of respondents to the USE scale skewed

results. There were only 60 participants out of the 146 available students identified as

sample A. If we treat 146 as the population to identify the minimal number of

respondents needed, applying Krejcie and Morgan's advice for determining rule once

again, we should have had at least 103-108 respondents (pp. 607-610). There are

other problems related to measuring self-esteem that could have emerged as part of

this study.

<u>Self-esteem</u>

The use of any instrument to measure self-esteem as an inferred measure can be a

problem. According to Suarez (1981):

> one main problem seems to be that under the restrictions imposed by survey
> techniques, it is not possible to detect feelings or attitudes directly, or to
> measure directly their intensity. Survey techniques force the researcher to
> make use of assumptions underlying inferred measurement. The fundamental
> assumption that individuals express their attitudes and feelings (as well as their
> opinions, beliefs, image, thoughts, past expectations) by means of observable
> behavior, e.g. by means of words and phrases interpretable in the framework of
> a given language and a given socio-historical and cultural context. (pp. 115-
> 116)

Self-esteem as a dependent variable is difficult to measure. "One cannot be sure if

responses reflect what a person really feels about themselves, if respondents are saying

what they think you want to hear, or if the instrument is really measuring what you

really want to know" (Kohn, 1994, p. 273). This is especially true when the

respondent is an adolescent. In this study, it is difficult to draw any conclusions about

the effect uniforms had on student self-esteem because no pre-assessment during the

non-uniform year using the USE scale had been done.

No comparisons can be made to determine whether the negative rating of 2.68,

although close to a neutral rating of 3.0 on a five point Likert scale, is really bad. Nor

can the researcher explain why students felt that their self-esteem was negatively

impacted wearing uniforms. Within this context, the rating does not provide any clues

about how students feel about uniforms or its effectiveness in improving self-esteem.

Issues relative to the quality and structure of the survey instrument itself could have

been an intervening variable.

USE Scale Structure

A Principal Component Factor Analysis with a varimax rotation was used to explore the structure of the USE Scale. When conducting a factor analysis, it is recommended that for every item on the pilot instrument, one uses at least six to ten respondents (Gable, 1993). The piloted USE scale contained 34 items. Based on Gable's recommendation, 204-340 participants should have been used, not 156 which was the size of the pilot population (Appendix E).

The five-point Likert scale used by the researcher could have had an impact on the determination of the structure of the instrument. Suarez states that:

> decisions concerning coding procedures enter into the research process at the earliest stage of the analysis, and in some cases are defined beforehand in the design of the questionnaire, the resulting factorial structure is to a certain extent predetermined. The danger in this is that unchecked and often unreported assumptions underlying particular coding procedures may be at the core of some competitive 'theories' which basically claim the existence of a given number of factors supposedly 'discovered' according to scientific canons. Moreover, since the resulting factors are often interpreted as 'constructs' the implications for the measurement of hypothesized 'latent' variables are obvious depending on the coding procedure the estimated scores will be different and the interrelationships between such variables and other measure will vary accordingly. (pp. 117-118)

The above criticism raises issues concerning the validity and reliability of the USE scale as a function of the Likert scale employed.

Administration of the USE Scale

Another area of concern is the length of time that elapsed between students wearing uniforms and administration of the USE scale. Students were asked to reflect back over eight months in order to respond to the USE scale. Ideally, it would have

been better to have administered the survey to participants when they were completing

the 8th grade or right at the very beginning of 9th grade in September 1997 at the very

latest. Waiting until the end of the first semester in January 1998 to administer the

survey created the opportunity for other mitigating factors to effect the quality of

responses relative to time.

Recommendations

Since the data collected as part of this study yielded mixed results about the effects

of school uniforms, there are several opportunities still remaining for future study.

The following recommendations involve changes to the methodology employed.

Population and Sample

Data could be analyzed differently by collecting information on the total population

available at each observational period, thus avoiding the use of inferential statistics

because the researcher would already have the entire population. Any differences or

changes noted would be meaningful. The differences would be real and no inference

would have to be made back to the population, as was the case in this study because a

sample was used. This method of collecting data on the entire population over time

should only be employed if there were no policy changes that would impact the

composition of the student body. In other words, the demographics of the building,

including mobility rates remain relatively constant.

Research Design

A comparative study exploring the differences in student outcomes across school levels (elementary, middle, and high), for example, could prove worthwhile in determining if uniforms are more effective at one level versus another. It may prove true that uniforms are more effective if used with certain groups of students. It might also prove interesting to investigate trends in attendance, discipline, and achievement by comparing a school's performance to other schools, in this case middle schools, within the school district. If differences as evidenced by positive trends appear to be more pronounced in the school with uniforms, for example, then drawing conclusions about the effectiveness of uniforms can be enhanced. However, if other middle schools or the school district is exhibiting the same pattern with the same degree of change, then it would be harder to isolate uniforms as tool for school improvement.

Historical Observations

A longer longitudinal study using a wider historical observation period for both the experimental and control groups is recommended. It would have been better to expand the observation period so that data would have been collected for at least three control periods and three experimental periods. Since there was only one control period and two experimental periods the researcher cannot eliminate the "halo-effect" as an explanation for fluctuations in data, nor can the researcher speak adequately about previous trends in student behaviors of attendance and discipline, and outcomes of grade point average and self-esteem based on one control observation period. At

least two cohorts of students should be have been compared to determine trends among these dependent variables over time. This would be extremely helpful if there were no change in leadership or other intervening events. The researcher had no way of knowing if the elapse in time affected student's memory and thus ability to respond to the USE scale. Therefore, it would be better to give students the USE scale prior to arriving to the school, which requires a uniform dress as a pre-assessment, and then provide a follow administration of the scale before they leave the school to assess self-esteem.

Data Collection

Information collected to assess academic performance and self-esteem could be improved. Data collected on student academic performance could, for example, be changed from grades to some form of standardized test data. Inflated or deflated grades could result from teacher biases.

Grade Point Average

Some teachers are more effective when working with students than others making rapport an intervening variable. There are differences in teacher expectations and standards could influence grades. By using a standardized measure you do not eliminate problems associated with teacher biases, but you at least have a consistent standard upon which to make judgments about student learning and implied teacher effectiveness. Other avenues for future research involve the USE scale.

<u>Self-esteem</u>

The USE scale benefit from further exploration to determine its structure. A factor analysis using an "N" of 340 or more should be employed to meet Gable's (1993) recommendation. It could be possible that with a larger group of respondents that the USE, which was determined to be essentially unidimensional based on the measures of internal consistency resulting from the factor analysis, that other constructs such as social competence, social participation, self-reported improved performance, or self-image could emerge. Data on self-esteem could also be obtained by using interviews to gather information. It might also be beneficial to explore the relationship between uniforms and self-esteem by asking more probing questions that are not facilitated by the use of a survey instrument.

Respondents reported self-esteem as being slightly negative, but what is not known is how or why the respondents felt that way. Conducting interviews with students would assist the researcher in determining what students thought about the influence of clothes (including uniforms) on their behavior and why they felt that way. Survey data could be triangulated using interviews by asking probing questions such as:

- Why do you think uniforms were adopted at your school?

- What changes have you noticed about the way you behave since you have begun to wear uniforms?

- How would you describe the school's environment before the adoption of uniforms?

- Do you feel differently about yourself now that you wear a uniform? Please explain.

- Do you feel that others treat you differently because of the way you look now that you wear a uniform? Please explain.

- Do you think uniforms are a good idea? Please explain.

- Do you think students behave better when they wear uniforms? Please explain.

- Are there fewer disruptions due to poor behavior in your classroom since uniforms were adopted? Please explain.

- Do uniforms help you to feel like you are a part of the school? Please explain.

- Do you think that you are a better student because you wear uniforms? Please explain.

- If you could write a dress policy, what information would you include and why?

Conclusions

Although the data collected as part of this study shows a negative relationship between the implementation of a mandatory uniform dress policy and attendance, grade point average, self-esteem, and mixed results with respect to discipline, educators may still wish to explore other possible benefits that were not addressed as part of this study. Other desirable benefits that could be derived from the implementation of a dress policy could be a change in the culture of the organization and the perceptions of stakeholders regarding the school's image. If the faculty, staff, students, and parents perceive changes in the school as positive, then other changes may occur such as increased parental involvement, a willingness to embrace other innovations, and improved morale. School administrators may consider studying these

areas, in addition to student attitudes, academic performance, and behavior as possible

indicators of a successful uniform dress policy.