

**The relationship between self-esteem and  
academic performance of freshman at the  
University of the Virgin Islands**

**By**

**Eno Iniama**

**A Research Paper presented at the annual conference of the Caribbean  
Studies Association, Marriott Hotel, St. Kitts, June 2004.**

## **ABSTRACT**

**This study examined the relationship between self-esteem and academic performance of freshman students at the University of the Virgin Islands, St. Thomas campus in 2004. The researcher used clustered sampling to acquire the sample from the total population. The sample consisted of 48 individuals, 10 males and 38 females. The literature on this topic states that having a high self-esteem does not necessarily produce higher academic performance. The researcher used an existing self-esteem inventory named the SEI (Self-Esteem Index) to derive a raw score and a percentile rank for each participant. The statistical tests used are the chi-square test of independence and the two-factor Analysis of Variance. The results of the research design employed and the chi-squared test show that there is no significant relationship between high school grade point average and self-esteem index score. The results of the two-factor Analysis of Variance show that the type of high school attended and gender of participant make no significant impact on college grade point average or on Scholastic Aptitude Test composite score. There is no significant interaction effect. More research needs to be done on this topic.**

The researcher wanted to use youth in St. Croix, USVI who have already been in trouble as my population of interest. This was original idea for a research study, but due to time limitations the researcher decided to use a more feasible and accessible population. The limitation is that the researcher would have to get permission in order to go to the youth facility in St. Croix the previous semester. This is how the researcher decided on the relationship between self-esteem and academic performance as my topic.

Many individuals do not realize that there is a difference between self-concept and self-esteem. They feel that the two concepts are used interchangeably in speech. This is not true. There is a big difference between self-esteem and self-concept. Self-concept is how a person sees them self, which can change on a daily basis. Self-esteem is how a person sees them self, and rates their overall value as a person, or worthiness as a human being. The concept of self-esteem is not able to be seen or measured with the naked eye, so it is necessary for a self-esteem inventory to be used to measure self-esteem.

Self-esteem is ones attitude towards oneself which may be positive, neutral, or negative.” (Oxford dictionary of Psychology) Self-esteem is static and does not change much. It is not possible for a person to have a positive self-esteem, one day and the next to have a negative self-esteem

The first research hypothesis states that there is a significant relationship between self-esteem and academic performance among freshman students at the University of the Virgin Islands. The second research hypothesis states that there is a significant difference between the means of the two groups based on gender/ type of high school attended.

Why is education valued in some cultures? I was born in Ibadan, Nigeria and there is a large university there called the University of Ibadan. Education is valued highly in

Nigeria as well as in the United States and many other First World, post-industrialized nations because education is a means to achieve success and make lots of money, which is important for capitalistic societies. In the United States during the era of slavery, the main method for trying to keep the slaves on a lower status, was to deny them the privilege of getting an education, instead they were forced to remain illiterate. The few slaves that could read or write were the one that could write passes for themselves and other slaves, and these were also people who were in the position to lead rebellions. Now, education is just as important because you will receive a higher salary as your education or training increases. This is a type of mental, institutionalized, slavery and does still keep African-Americans in a lower social class or position in comparison to Whites. This brings me to the point of why this topic is so important? It is important for all students to perform to the best of their ability academically. This research project has the intent of examining the relationship between self-esteem and academic performance.

#### **STATEMENT OF THE PROBLEM**

It is worthwhile that this study was conducted so that we can see how important it is for elementary, junior high, high school students, as well as college students to build upon their self-esteem so that children here in the United States Virgin Islands can achieve more academically. It has been shown that high academic performance influences a person's self-esteem, but it is still questionable whether the reverse is true. The researcher expected to find a strong positive correlation between self-esteem and academic performance. That is, as self-esteem increases, so does academic performance. Also the reverse should hold true, that as academic performance increases so will self-esteem.

## **LITERATURE REVIEW**

There is literature both supporting and refuting the theory that there is a relationship between self-esteem and academic performance. There is much research and literature about self-esteem in the United States, Australia, and St. Croix, but I have not found any research that has been attempted on the island of St. Thomas. In the Virgin Islands, Dr. Frank Mills of The Eastern Caribbean Center at the University of the Virgin Islands has done a study on juvenile offenders and factors that increase the likelihood of a juvenile in becoming a repeat offender. This study shows that a first time offender who feels worthless is twice as likely to become a repeat offender as a first time offender who does not feel worthless. A person who feels worthless is suffering from a low or negative self-esteem. From this study, one can see the impact of a negative self-esteem on our society.

“Burke, Hunt & Bickford (1985) found that college students with high self-esteem expect good results on academic examinations. They also tend to attribute satisfactory results to stable features within themselves. When students with low-self-esteem score low on examinations they tend to regard the score as a reflection on their ability rather than for some other less personal reason.” (Nolan, 1996)

In the Virgin Islands, most children come from single-parent households, a majority are headed by females, mothers or grandmothers. If the mother has feelings of low self-worth herself, these feelings of low self-worth possibly could be passed onto her children. If the mother does not feel worthy herself, she will spend less time trying to ensure that her children feel worthy as individuals. In a research done on the island of St. Croix, it was found that family structure does play a role in self-esteem in junior high school students, but that family structure impacts the self-esteem of males over females.

“Historically, America’s colleges and universities have had an educational and social mission to educate in a sense that extends beyond the cognitive and intellectual development of students. That broader mission has defined education to include increased self-understanding; expansion of persona; intellectual, cultural, and social horizons and interests; liberation from dogma, prejudice, and narrow-mindedness; development of personal moral and ethical standards; preparation for useful and productive employment and membership in a democratic society; and the general enhancement of the quality of graduates’ post college lives.” (Pascarella, 1991)

When researching self-esteem, students generalized judgments of their own worth. “An individual with high self-esteem is typically characterized as having feelings of worth, being able to do things as well as others, having a number of good qualities, having much to be proud of, having a positive attitude toward oneself, feeling useful to others, feeling self-confident, and being satisfied with oneself. (Pascarella, 1991)

Most of the research on self-esteem has been done on children and a very small percentage has been done on young adults.

A study at the University of Michigan shows that the relation between GPA and esteem depends on the population of interest, the context in which the relationship is examined and the time of measurement.

There is also research that shows that improved academic performance in children increases their self-esteem, although increased self-esteem does not improve academic performance. Hence, efforts to improve self-esteem in children are misplaced and should be replaced by efforts at improving academic performance. (Moeller, 1994) The researcher find this to be very interesting because it is stating that the bottom line is that

improving academic performance in children is more important than improving self-esteem in children. This is true, because the researcher feels that she had a very high feelings of self-esteem because she was performing excellently in elementary and in junior high school.

There is a study of African American students that was done at a historically black college that shows the correlation between strong racial identity and high academic achievement is overstated. The researchers found that a high level of self-esteem, rather than racial identity, was a major factor in determining academic success. (Lockett, 2003) This means that racial identity does not play a major role in determining academic performance and achievement.

There are sociological theorists that address the issue of self-concept. Charles Horton Cooley and George Herbert Mead are the two sociologists that talk about the self and the importance of self-concept. Charles Horton Cooley (1864-1929) developed a theory called the “looking-glass self”. Cooley believes that there is a three-step process for the development of the self to occur. First, we must imagine our own appearance. Second, we must interpret the reaction of others. The third and final stage is that ones self-concept must be developed based on both how one sees themselves as well as how one interprets and perceives that others see them. This is important because self-concept precedes self-esteem

There was a study done by Bray, which examined the influence of academic achievement on a college student’s self-esteem. The purpose of the study was to ascertain whether academic achievement had more of an impact on a college student’s self-esteem depending on whether the student was a general student or an Honors student.

The researcher used the Rosenberg Self-Esteem Inventory. The results of this study were that academic achievement and self-esteem have a positive relationship, which agrees with previous research. This means that as academic achievement increases, self-esteem will also increase.

### **SIGNIFICANCE OF THE STUDY**

This study is important because it will show how important it is for youth in the Virgin Islands to have a positive self-esteem in order to become more productive citizens. Right now, there is a shortage of educated persons in the Virgin Islands. Most politicians in the Virgin Islands do not even possess a bachelor's degree, to even think about a masters or doctoral degree. Our young people are leaving to go to college in the United States and most of them choose not to return to the Virgin Islands for whatever reason. With the loss of accreditation, education is becoming more of an issue. Education is the way to lead the people of the Virgin Islands away from social problems such as crime, poverty, racism and racial prejudice, teenage pregnancy, drugs, both dealing and using, HIV/AIDS, divorce, child abuse, and sexual abuse that is now running rampant. All these social problems occur when there are low levels of self-esteem and can make a person's self-esteem negative regardless of how many positive role models there are in a child's life.

This study is significant to the Virgin Islands community so that there may be a change in the education system where all Virgin Islands youth will have an improved self-esteem due to academic performance, and despite living in poverty or living in unstable family environments.

This study is of significance to the Social Sciences because self-esteem is evident in

social psychology, but it also has influence in history, political science, sociology, cultural geography, social work and economics because every human being has the potential for having a high self-esteem or low self-esteem.

## **METHODOLOGY**

This study took place in the spring semester of the year 2004. The research design for this study is survey research. The instrument that was utilized was a questionnaire. The researcher used an existing self-esteem inventory. The researcher used clustered sampling so that the study may have external validity, which means that it will be able to generalize to the population. The researcher acquired a list of all the freshman courses and selected five classes to use as part of the sample. The researcher got permission from all the professors before administering the questionnaires. The researcher had to ask each student to verify that each student who participated was a freshman to make sure that only freshman students were included in the sample. The researcher attempted to include 10% of this total population into my sample. The population studied in this research study is college freshmen at the University of the Virgin Islands, St. Thomas campus. The sample size for this study is 48 participants, 10 males and 38 females.

The questionnaire that the researcher used consisted of eighty-seven questions, which is a longer questionnaire than most. This questionnaire is included in the Appendix of this research paper. Most of the questions on the questionnaire are on an interval level of measurement using Likert scale, which are on an interval scale to find out level of agreement with each statement. The researcher used the categories: strongly agree, agree, disagree, or strongly disagree. The researcher asked demographic questions, such as age, gender, race, type of high school attended, whether public or private, which are

nominal variables. The researcher asked students to provide their high school grade point average, college grade point average and Scholastic Aptitude Test (SAT) composite score as a measure of academic performance.

The researcher used the chi-squared as well as Analysis of Variance (ANOVA) to analyze the data. The researcher used the chi-squared test to ascertain whether there is a relationship between high school grade point average and self-esteem ranking score. The researcher used a two-factor Analysis of Variance to ascertain whether or not there is a relationship between the factors, gender (male/female) and type of school (public/private) on Scholastic Aptitude Test composite score and college grade point average.

The assumptions of using chi-squared are that both variables have to be on a nominal level of measurement. No assumptions were made about the shape of the distribution. There is one assumption that this research did not meet. This is the assumption that not more than twenty percent of the categories should have expected frequencies of less than five.

In a factorial ANOVA, there is more than one independent variable. In this research project, there are two independent variables (gender/school) each with two levels (male/female, public/private). The two independent variables must remain independent of each other. A 2\*2 factorial ANOVA is very useful because it allows the researcher to ascertain the effects of the two independent variables on the dependent variable, plus it shows whether there is an interaction effect. The anticipated limitation to this study is the fact that the sample only includes freshman students that are on the St. Thomas campus and this means that the study may not be able to be generalized to the larger freshman population at the University of the Virgin Islands.

## RESULTS

In this section descriptive statistics, cross tabs, comparison of the means, and ANOVA results are given. ANOVA does compare the means of the two variables, but the researcher achieved slightly different results from just a comparison of the means. The following are frequencies for age, gender, race, school, and high school grade point average.

AGE	Frequency	Percent
-15-17	1	2.1
18-20	29	60.4
21-23	13	27.1
24 & up	5	10.4
Total	48	100.0

Sixty two percent of the participants (30) were between the ages of fifteen and 20, while only thirty-seven and a half percent of the participants (18) were aged twenty-one and over.

GENDER	Frequency	Percent
male	10	20.8
female	38	79.2
Total	48	100.0

Approximately seventy-nine percent (38) of the participants were female, while approximately twenty-one percent (10) were males. This means that there were three times more female participants than male participants.

RACE	Frequency	Percent
	1	2.1
Black	40	83.3
White	2	4.2
E. Indian	1	2.1
Hispanic	3	6.3
Human	1	2.1
Total	48	100.0

Eighty-three percent of the participants were Black (40). Only six percent were Hispanic (3), four percent were Caucasian (2). Two percent each were East Indian (1), didn't answer the question (1), or stated that they were of the human race (1).

SCHOOL	Frequency	Percent	Valid Percent	Cumulative Percent
	2	4.2	4.2	4.2
public	40	83.3	83.3	87.5
private	6	12.5	12.5	100.0
Total	48	100.0	100.0	

Approximately eighty-three percent of the participants (40) attended public school, while only approximately thirteen percent (6) attended private school. Two participants (4.6%) did not respond to this question.

HGPA	Frequency	Percent
	6	12.5
1.8 - 2.5	5	10.4
2.51 - 3.2	17	35.4
3.21 -4.0	20	41.7
Total	48	100.0

Six participants did not respond to this question (12.5%). Five participants (10.4%) of the participants stated that they had a cumulative high school grade point average between the ranges of 1.8-2.5. Seventeen participants (35.4%) stated that they had a cumulative high school grade point average between the ranges of 2.51-3.2. Twenty participants (41.7%) stated that they had a cumulative high school grade point average of between 3.21 -4.00. Approximately 77% of all the participants stated that they had a high school grade point average of 2.51 or more.

**Table 1.1 Descriptive Statistics for college grade point average, SAT score, and raw score.**

Descriptive Statistics	N	Range	Minimum	Maximum	Mean	Std. Deviation
CGPA	20	2.00	2.00	4.00	3.1515	.54379
SAT	21	930	350	1280	837.62	243.329
RAW	46	115.00	188.00	303.00	244.3043	26.76886

The mean college grade point average for the twenty participants is 3.1515 with a standard deviation of .54379. The mean SAT score for the 21 participants was 837. The mean raw score from the self-esteem inventory was 244. The minimum college grade point average was 2.00 while the maximum college grade point average was 4.00. The range for college grade point average is two whole grade points. The minimum SAT score was 350, while the maximum SAT score was 1280. The range for SAT scores is 930. The minimum raw score for the self-esteem inventory was 188, while the maximum was 330.

**Table 2.1 Mean SAT score based on gender.**

GENDER	Mean	N	Std. Deviation
male	774.00	5	274.372
female	857.50	16	238.956
Total	837.62	21	243.329

The mean SAT score for the male participants was 774. The mean SAT score for the female participants was 857. The mean SAT score for the total sample was 837. This means that the male participants mean was lower SAT score than the mean SAT score for all the participants as well as the mean SAT score for the female participants.

**Table 2.2 Mean college grade point average based on gender.**

GENDER	Mean	N	Std. Deviation
male	3.3967	6	.48706
female	3.0464	14	.54892
Total	3.1515	20	.54379

The mean college grade point average for the male participants was 3.40. The mean

college grade point average for the female participants was 3.05. The mean college grade point average for the male participants was 3.15. This means that females have a lower college grade point average than the male participants.

**Table 2.3 Mean college grade point average based on high school attended.**

SCHOOL	Mean	N	Std. Deviation
public	3.1235	17	.53322
private	3.3100	3	.70021
Total	3.1515	20	.54379

The mean college grade point average for the (17) participants that attended a public high school was 3.12. The mean college grade point average for the (3) participants that attended a private high school was 3.31. The mean high school grade point average for the (20) participants who answered this question was 3.15.

**Table 2.4 Mean SAT score based on high school attended.**

SCHOOL	Mean	N	Std. Deviation
public	828.12	16	253.409
private	840.00	4	257.682
	980.00	1	.
Total	837.62	21	243.329

The mean SAT score for the (16) public school participants was 828. The mean SAT score for the (4) public school participants was 840. One participant had a SAT score of 980, but they did not indicate what type of high school they attended.

**Chi-squared Table 3.1 Is there a significant relationship between high school grades point average and percentile rank/self-esteem index rate?**

Chi-Squared Results			
	D.F	P-value	Significance
HGPA & Percentile Rank	6	.254	Not significant p>.05
HGPA & Self- Esteem Index	9	.225	Not significant p>.05

None of the chi-square results were significant at a p-value=.05. A chi square test that

is not significant indicates that there is no significant between the two variables. There was no significant relationship between high school grade point average and percentile rank of the self-esteem index. There was no significant relationship between high school grade point average and self-esteem index score.

**Table 4.1 Does gender or school impact the college grade point average of participants?**

<b>2*2 Factor Analysis of Variance</b>				
<b>DV: CGPA</b>	<b>Sum of Squares</b>	<b>Degrees of Freedom</b>	<b>P-Value</b>	<b>Significance p=.05</b>
<b>GENDER</b>	<b>.083</b>	<b>1</b>	<b>.612</b>	<b>Not significant p&gt;.05</b>
<b>SCHOOL</b>	<b>.014</b>	<b>1</b>	<b>.834</b>	<b>Not significant p&gt;.05</b>
<b>GENDER* SCHOOL</b>	<b>.111</b>	<b>1</b>	<b>.559</b>	<b>Not significant p&gt;.05</b>

None of the ANOVA results were significant at a p-value = .05. The dependent variable was the college grade point average of the participants. Gender did not significantly impact the college grade point average of the participants. The type of high school attended did not have a significant impact on the college grade point average. Finally, the interaction between gender and type of high school attended did not significantly impact the college grade point average.

**Table 4.2 Does gender or school significantly impact the SAT score of the participants?**

<b>2*2 Factor Analysis of Variance</b>				
<b>DV: SAT</b>	<b>Sum of Squares</b>	<b>Degrees of Freedom</b>	<b>P-Value</b>	<b>Significance p=.05</b>
<b>GENDER</b>	<b>84336.83</b>	<b>1</b>	<b>.266</b>	<b>Not significant p&gt;.05</b>
<b>SCHOOL</b>	<b>2672.172</b>	<b>2</b>	<b>.979</b>	<b>Not significant p&gt;.05</b>
<b>GENDER* SCHOOL</b>	<b>122198.65</b>	<b>1</b>	<b>.184</b>	<b>Not significant p&gt;.05</b>

None of the ANOVA results were significant at a p-value=.05. The dependent variable was the SAT composite score of the participants. Gender did not significantly impact the SAT composite score of the participants. The type of high school attended did not have a significant impact on the SAT composite score. Finally, the interaction between gender and type of high school attended did not have an impact on the SAT composite score. Even though, gender, type of high school did not have an significant effect, it is still interesting to look at the differences.

**Chi-Squared Table 1.8 Comparison of high school grade point average and self-esteem rating**

		SEI				Total
		low	average	high	No response	
HGPA	1.8 - 2.5	2	3	0	0	5
	2.51 - 3.2	6	7	4	0	17
	3.21 - 4.0	5	3	10	2	20
	No reply	3	1	2	0	6
Total		16	14	16	2	48

Even though the statistical tests showed that there is no significant relationship between

self-esteem and academic performance this crosstab shows that twelve students out of twenty students who stated that their high school grade point average was between 3.21 and 4.00 had an above average or high score on the self-esteem inventory. In contrast, only one of the five students that stated that their high school grade point average was between 1.8 and 2.5 had an above average self-esteem score.

*Tables 6.1 through Table 6.6 are comparison of the means using ANOVA.*

**Table 6.1 Comparison of the mean SAT score based on gender (ANOVA)**

Gender	MEAN
male	753.333(a)
female	943.846

The mean SAT score for the male participants was 753, while the mean SAT score for females was 943, which is almost 200 points greater than the mean score for the male participants.

**Table 6.2 Comparison of the mean SAT score based on type of high school attended (ANOVA)**

School	MEAN
No response	980.000(a)
public	839.103
private	840.000

The mean SAT score for the participants who attended a public high school was 839. The mean SAT score for the participants who attended a private high school was 840. This means that the means for type of high school attended are almost the same for the dependent variable, which is the SAT score. There is a smaller standard error for public school participants, because there were more students that attended a public high school included in the sample.

**Table 6.3 Comparison of the mean SAT score based on gender/ type of high school attended (ANOVA)**

GENDER	SCHOOL	MEAN
Male	No response	.
	Public	856.667
	Private	650.000
Female	No response	980.000
	Public	821.538
	Private	1030.000

The mean SAT score for the male participants who attended a public high school is 856. The mean SAT score for the female participants who attended a public high school is 821. The mean SAT score for the male participants who attended a private high school is 650. The mean SAT score for the female participants who attended a private high school is 1030. The female participants that attended a private high school had by far the highest mean SAT score.

**Table 6.4 Comparison of the mean grade point average based on gender ANOVA)**

GENDER	MEAN
male	3.373
female	3.177

The mean college grade point average for the male participants was 3.373, while the mean college grade point average for the female participants was 3.177, which is slight lower than the males' college grade point average. Please, bear in mind that these freshman students have only received grades for one semester at the University of the Virgin Islands.

**Table 6.5 Comparison of the mean college grade point average based on type of high school attended (ANOVA)**

SCHOOL	MEAN
public	3.235
private	3.315

The mean college grade point average for participants who attended a private high school was 3.315. The mean college grade point average for participants who attended a public high school was 3.235. This means that the participants who attended a private high school had a slightly higher mean college grade point average than the participants who attended a public high school.

**Table 6.6 Comparison of the mean college grade point average based on gender and type of high school attended (ANOVA)**

GENDER	SCHOOL	MEAN
Male	public	3.445
	private	3.300
female	public	3.025
	private	3.330

The mean college grade point average for males who attended a public high school was 3.445 while the mean college grade point average for males who attended a private high school was 3.330. The mean college grade point average for females who attended a public high school was 3.025. The mean college grade point average for females who attended a private high school was 3.330.

## **LIMITATIONS OF THE STUDY**

There are limitations to this study and the researcher would like to suggest ways that this study may be improved. A detrimental factor to this study was the lack of time and money, which are two valuable resources. The sample size may not have been as large as necessary. This may be due to the fact that most of the students were unwilling to become participants because they were looking at the length of the survey. A couple of students jokingly stated, "This is just like the Daily News."

The researcher realized that many of the respondents in the sample did not write down a Scholastic Aptitude Test score. The researcher made this question an open-ended question, but should have used ranges such as 0-400, 401-800, 801- 1200, 1201-

1600, to elicit a better response from the respondents. The participants were unwilling or unable to give a high school or college grade point average. The researcher realized this during data analysis.

It would also have been better if the researcher could have used a sequential design, meaning that this study would be both cross-sectional as well as longitudinal. It would be nice if could have followed the same participants and gave them the same self-esteem inventory to see how their answers would change each year over a four or five year period. This would entail that the researcher would have to know each participant's name, and this might violate confidentiality issues.

There were also strengths in the study. The major strength of the study is that the study used an existing self-esteem inventory. The researcher did not allow the length of the questionnaire to deter her. She realized the length of the self-esteem inventory would make more work for her, but she planned her time and used what little time she had wisely and efficiently.

## BIBLIOGRAPHY

*Bedminster, Eunice UVI study produces profiles of V.I. youths likely to commit crimes.*

*The Daily News, (November 29, 2003)*

*Beresford, Regna (1992) The relationship of the family structure to the self-esteem of junior high school students on St. Croix (thesis)*

*Bray, B.M., (2000) The Influence of Academic Achievement on a College Student's Self-Esteem.*

*Burke, J.P., Hunt, J.P., & Bickford, R.L., (1985). Causal internalization of academic performance as a function of self-esteem and performance satisfaction. Journal of Research in Personality, 19, 321-329.*

*Colman, A.M., Oxford dictionary of Psychology (2001) Oxford, England: Oxford University Press*

*Coopersmith, S., (1990). Self-Esteem inventories. Palo Alto, CA: Consulting Psychologists Press*

*Crocker Jennifer (2002) The costs of seeking self-esteem. Journal of Social Issues pg.597.*

*Crocker, J., Luhtanen, M., Cooper, L., Bouvrette, A., Journal of Personality and Social Psychology Nov. 2003 v85 i5 pg 894 (15)*

*Dalziel, J.R., and Peat, M., (2001) Academic performance during student transition to university studies*

*Moeller, T. G., What research says about self-esteem and academic performance, Education digest, Jan 1994, v59 n5 pg34 (4)*

*Nolan, R.F., Dai, Y., and Smith, J.N., (1996) Self-esteem reported by African-American students enrolled in North Louisiana Middle Schools*

*Pascarella, E.T. (1991) How college affects students. Jossey-Bass Inc.: San Francisco, CA*

*Peck, S.C., Eccles, S., Malanchuk, O., (The Relation Between Academic Performance and Self-Esteem Depends ...*

## APPENDIX