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ABSTRACT

The purposes of this study were to examine the relationship between emotional intelligence as measured by the Emotional Intelligence Inventory (EQI) (M. Tapia and J. Burry-Stock, 1998) and intelligence as measured by the Otis-Lennon School Ability Test (OLSAT). Other comparisons included measures of verbal and mathematics scores on the Preliminary Scholastic Assessment Test (PSAT), grade point average (GPA), and the demographic variables of ethnicity, gender, and levels of education of parents. A structural equation model was built with the variables that had a significant relationship with emotional intelligence. The sample included 319 high school students from the American School Foundation in Mexico City. The resulting data showed a nonsignificant correlation of OLSAT scores and EQI scores, indicating a lack of relationship between the construct of emotional intelligence and general intelligence, and there was also a lack of relationship with academic achievement as measured by the PSAT. A significant correlation was found with GPA. There were no significant differences when EQI scores were grouped by ethnic background, level of education of mother, and level of education of father. Females scored significantly higher on the EQI than males. The analysis of the structural equation model built indicated a goodness of fit index of 0.993, a root mean square error of approximation of 0.0489, and a chi-square of 5.123 with 3 degrees of freedom and $p=0.163$. These three statistics were sufficient to support the model. (Contains 1 figure, 18 tables, and 35 references.) (Author/SLD)

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THE RELATIONSHIPS OF THE EMOTIONAL INTELLIGENCE INVENTORY

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ABSTRACT

The purposes of this study were to examine the relationship between emotional intelligence as measured by the Emotional Intelligence Inventory (EQI) and intelligence as measured by the Otis-Lennon School Ability Test (OLSAT). Other comparisons included measures of verbal and mathematics scores on the Preliminary Scholastic Assessment Test (PSAT), grade point average (GPA), and the demographic variables of ethnicity, gender, and levels of education of parents. A structural equation model was built with the variables that had a significant relationship with emotional intelligence. The sample included 319 high school students from the American School Foundation in Mexico City.

The resulting data showed a non-significant correlation of OLSAT scores and EQI scores indicating a lack of relationship between the construct of emotional intelligence and general intelligence, and there was also a lack of relationship with academic achievement as measured by the PSAT. A significant correlation was found with grade point average. There were no significant differences when EQI scores were grouped by ethnic background, level of education of mother and level of education of father. Females scored significantly higher on the EQI than males. The analysis of the structural equation model built indicated a Goodness of Fit Index of 0.993, a Root Mean Square Error of Approximation of 0.0489, and a Chi-square of 5.123 with 3 degrees of freedom and $p = 0.163$. These three statistics were sufficient to verify the model.

THE RELATIONSHIPS OF THE EMOTIONAL INTELLIGENCE INVENTORY

Introduction

Thorndike (1920) envisioned three kinds of intelligence, social, concrete, and abstract. Until recently, only concrete and abstract intelligence have been studied extensively. Goleman's (1995) popular book about emotional intelligence generated current interest in this topic, although Salovey and Mayer (1990; 1997) have written more extensively about it. While intelligence has been considered an important predictor of success in school and later life adjustment, academic intelligence is now considered by some to be a poor predictor of later life adjustment (Sternberg, 1993; 1996a; Sternberg, Wagner, Williams, & Horvath, 1995). Gardner (1995) maintains that intelligence accounts for only 20% of the factors that determine life success. Herrnstein and Murray (1994) point out that "the link between test scores and those achievements is dwarfed by the totality of other characteristics [brought] ... to life" (p. 66).

Emotional intelligence involves the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth (Goleman, 1995; Mayer & Geher, 1996; Mayer & Salovey, 1997; Salovey and Mayer, 1990). According to Mayer and Salovey (1997), this definition connects intelligence and emotion because it combines the ideas that emotion makes thinking more intelligent and that one thinks intelligently about emotions. From this point of view, a person with these abilities is considered a well-adjusted and emotionally skilled person; the lack of these abilities renders a person socially and emotionally handicapped.

The Emotional Intelligence Inventory (EQI) was designed by Tapia and Burry-Stock (1998) to investigate the underlying dimensions of emotional intelligence. The items of the EQI were developed according to the model of emotional intelligence given by Salovey and Mayer (1990) and Mayer and Salovey (1997). The EQI also incorporated the work of a preceding instrument, The Emotional Intelligence Inventory (Acker, Baggett, Davis, Kuhajda, Weaver-Stern, Sutarso, & Tapia, 1996).

One purpose of this study was to examine the relationship between emotional intelligence as measured by the scores on the EQI and intelligence as measured by the Otis-Lennon School Ability Test (OLSAT). Another purpose of this study was to obtain information about the relationship between emotional intelligence as measured by the scores on the EQI and academic

achievement as measured by the verbal and mathematics scores on the Preliminary Scholastic Assessment Test (PSAT). The study also examined the relationship between emotional intelligence as measured by the EQI scores and high school grade point (GPA). Finally, this study investigated the relationship between emotional intelligence and three demographic variables, ethnicity, gender, and level of education of parents. The determination of the interrelationships between emotional intelligence as measured by the EQI scores and scores on the OLSAT, the PSAT, and students' GPA and the three demographic variables constitute a preliminary investigation of emotional intelligence using the EQI.

Method

Subjects

The subjects were 319 high school students from a private, bilingual college preparatory school in Mexico City, Mexico. One hundred and sixty-two subjects were males, and 157 subjects were females. All subjects were juniors and seniors in high school.

Seventy percent of the students were Hispanic. Twenty percent of the students were white and 6% were Asian. There were three Native Americans in the sample, and nine subjects were of other ethnic backgrounds. All the subjects planned to attend college. One hundred and forty-five students planned to get a Master's degree. One hundred and twenty four students were planning to pursue doctoral studies.

Of the 162 males, 72 were juniors and 90 were seniors in high school. Seventy one percent of the males were Hispanic, 20% white, and 6% Asian. All the males planned to attend college. Forty-seven percent of the males planned to get a Master's degree and 39% planned to get a doctorate.

Of the 157 females, 85 were juniors and 72 were seniors in high school. Seventy percent of the females were Hispanic, 20% white, and 7% Asian. All the females planned to attend college. Forty-four percent of the females planned to get a Master's degree, and 39% were planning to get a doctorate.

Materials

The EQI Revised is a 41-item scale. The items were constructed using a Likert scale for response. There were five possible alternatives for the responses: never like me, occasionally like me, sometimes like me, frequently like me, and always like me.

In order to score the results each response was given a value. A value of one was given to a never like me response, two was given to an answer of occasionally by me, three was given to a sometimes like me response, four to a frequently like me answer, and five was given to always like me. Fifteen items of this instrument were reversed items. These items were given the appropriate value for the analysis.

A Student's Demographic Questionnaire was also used. This questionnaire consisted of five questions. The purpose of these questions was for identifying the student, gender, ethnicity, level of education of father, and level of education of mother. Directions were provided in such a way that no special skill is necessary to either take or give these instruments.

The Otis-Lennon School Ability Test (OLSAT) is a mental abilities test with national norms, published by the Psychological Corporation. The test consists of 72 items. Items on the test were developed to measure performance on Verbal Comprehension, Verbal Reasoning, Pictorial Reasoning, Figural Reasoning, and Quantitative Reasoning. The OLSAT reports a school ability index, on a single scale.

The Preliminary Scholastic Aptitude Test is a multiple choice test that measures verbal and mathematical reasoning abilities, designed to predict success in college/university work. The test is published by Educational Testing Services. It is administered in October each year. Two scores are reported, one for verbal and one for mathematical reasoning.

Procedure

The English teachers administered the EQI and the demographic questionnaire during English classes. Participants recorded their responses on computer scannable answer sheets.

Results

A Pearson product moment correlation was calculated between the EQI scores and the OLSAT scores for the 283 subjects that had both scores. The correlation was found to be not significantly different from 0 ($p < .53$). Therefore, it can be said that there is no relationship between the EQI scores and the OLSAT scores for this group.

Tapia (1999) found a four-factor solution from an exploratory factor analysis with maximum likelihood method of extraction and a varimax, orthogonal, rotation. The names for the factors reported by Tapia (1999) were Empathy, Reflections on Feelings, Handling relationships, and Self-control. Based on that factor analysis, the 41 items were classified into four emotional intelligence categories each of which was represented by a factor. A composite score for each category was calculated by adding up all the numbers of the scaled responses to the items belonging to that category. The four composite scores were the independent variables. The dependent variable was the OLSAT score.

A SAS computer program was used to obtain the full model. Analysis of variance indicated that the regression was not significant ($F = .130$, $p = .9712$). Parameter estimates (B) and standardized estimates (β) for the regression model are found in Table 1. None of the predictors made a significant contribution, for $p < .05$, to the model (see Table 1).

A backward multiple regression analysis to determine the best model was conducted. The significance level used for stopping (sls) was .10. All variables were removed from the model. The order in which the variables were removed, partial R^2 , F statistics, and probabilities are given on Table 2.

Table 1

Summary of Regression Analysis for Variables Predicting OLSAT Scores: N=283

Variable	B	SE	β	p
Intercept	95.650	7.595	0.000	0.000
Empathy	0.066	0.139	0.034	0.636
Reflection on Feelings	0.055	0.168	0.023	0.743
Handling Relationships	-0.026	0.167	-0.012	0.876
Self-Control	0.187	0.137	0.201	0.841

Note: $R^2 = .002$

Table 2

Summary of Backward Elimination Procedure for Variables Predicting OLSAT Scores: N=283

Variable Removed	Partial R^2	F	p
Empathy	0.0001	0.0246	0.876
Reflection on Feelings	0.0001	0.0371	0.847
Handling Relationships	0.0005	0.0137	0.712
Self-Control	0.0012	0.0327	0.568

A Pearson product moment correlation was calculated between the EQI scores and the Verbal scores of the PSAT for the 288 subjects that had both scores. The correlation was found to be not significantly different from 0 ($p < .26$). Therefore, no relationship was found between the EQI scores and the Verbal scores of the PSAT for this group.

The 41 items were classified into four emotional intelligence categories, each of which was represented by a factor reported by Tapia (1999). A composite score for each category was calculated by adding up all the numbers of the scaled responses to the items belonging to that category. The four composite scores were the independent variables. The dependent variable was the Verbal score of the PSAT.

A SAS program was used to obtain the full model. Analysis of variance indicated that the regression was not significant ($F = 1.029$, $p = .3925$). Parameter estimates (B) and standardized estimates (β) for the regression model are found in Table 3. None of the predictors made a significant contribution, for $p < .05$, to the model (see Table 3).

Table 3

Summary of Regression Analysis for Variables Predicting Verbal PSAT Scores: N=288

Variable	B	SE	β	p
Intercept	43.588	5.793	0.000	0.000
Empathy	-0.024	0.105	-0.016	0.819
Reflection on Feelings	0.025	0.125	0.014	0.843
Handling Relationships	0.037	0.125	0.021	0.769
Self-Control	0.187	0.106	0.110	0.079

Note: $R^2 = .014$

A backward multiple regression analysis to determine the best model was conducted. The significance level used for stopping (sls) was .10. Three variables, Empathy, Reflection on Feelings, and Handling Relationships, were removed from the model. The order in which the variables were removed, partial R^2 , F statistics, and probabilities are given on Table 4. The reduced model parameter estimates, standard error, and probabilities are found on Table 5.

A Pearson product moment correlation was calculated between the EQI scores and the Math scores of the PSAT for the 288 subjects that had both scores. The correlation was found to be not significantly different from 0 ($p < .22$). Therefore, no relationship was found between the EQI scores and the Math scores of the PSAT.

Table 4

Summary of Backward Elimination Procedure for Variables Predicting Verbal PSAT Scores: N=288

Variable Removed	Partial R ²	F	p
Reflection on Feelings	0.0001	0.0392	0.843
Empathy	0.0001	0.0403	0.841
Handling Relationships	0.0004	0.1071	0.744

Table 5

Reduced Regression Model for Variables Predicting Verbal PSAT Scores: N=288

Variable	B	SE	β	p
Intercept	44.321	3.107	0.000	0.000
Self-Control	0.199	0.100	0.117	0.047

The 41 items were classified into four emotional intelligence categories, each of which was represented by a factor reported by Tapia (1999). A composite score for each category was calculated by adding up all the numbers of the scaled responses to the items belonging to that category. The four composite scores were the independent variables. The dependent variable was the Math score of the PSAT.

A SAS program was used to obtain the full model. Analysis of variance indicated that the regression was not significant ($F = .961$, $p = .4295$). Parameter estimates (B) and standardized estimates (β) for the regression model are found on Table 6. None of the predictors made a significant contribution, for $p < .05$, to the model (see Table 6).

A backward multiple regression analysis to determine the best model was conducted. The significance level used for stopping (sls) was .10. All variables were removed from the model. Although the variable Handling Relationships was found to be marginally significant ($p < 0.112$). The order in which the variables were removed, partial R², F statistics, and probabilities are given on Table 7.

Table 6

Summary of Regression Analysis for Variables Predicting Math PSAT Scores: N=288

Variable	B	SE	β	p
Intercept	47.505	5.306	0.000	0.000
Empathy	-0.074	0.096	-0.053	0.441
Reflection on Feelings	0.004	0.115	0.002	0.976
Handling Relationships	0.181	0.114	0.114	0.114
Self-Control	0.065	0.097	0.042	0.503

Note: $R^2 = .013$

Table 7

Summary of Backward Elimination Procedure for Variables Predicting Math PSAT Scores: N=288

Variable Removed	Partial R^2	F	p
Reflection on Feelings	0.0000	0.0009	0.976
Self-control	0.0017	0.4991	0.481
Empathy	0.0028	0.8180	0.367
Handling Relationships	0.0088	2.5454	0.112

A Pearson product moment correlation was calculated between the EQI scores and the students' GPA for the 312 subjects that had both scores. A positive correlation (+.204) was found between the EQI scores and students' GPA. This relationship was significant at the .01 level of significance. This correlation is also statistically significant based on the criteria of a minimum r of .197 for a sample of at least 100 (Hopkins & Glass, 1978). Therefore, a relationship was found between the EQI scores and students' GPA for this group.

The 41 items were classified into four emotional intelligence categories, each of which was represented by a factor reported by Tapia (1999). A composite score for each category was calculated by adding up all the numbers of the scaled responses to the items belonging to that category. The composite scores were the independent variables. The dependent variable was the student's GPA.

A SAS program was used to obtain the full model. Analysis of variance indicated that the regression was found to be significant ($F = 5.391$, $p = .0003$). Parameter estimates (B) and standardized estimates (β) for the regression model are found in Table 8. Two of the predictors, Empathy and Self-control, made a significant contribution, for $p < .05$, to the model (Table 8).

Table 8

Summary of Regression Analysis for Variables Predicting Students' GPA: N = 311

Variable	B	SE	β	p
Intercept	67.586	3.683	0.000	0.000
Empathy	0.212	0.065	0.208	0.001
Reflection on Feelings	0.053	0.080	0.043	0.503
Handling Relationships	-0.072	0.078	-0.062	0.357
Self-Control	0.204	0.067	0.179	0.002

Note: $R^2 = .066$

A backward multiple regression analysis to determine the best model was conducted. The significance level used for stopping (sls) used was .10. Two variables, Reflection on Feelings and Handling Relationships, were removed from the model. The order in which the variables were removed, partial R^2 , F statistics, and probabilities are given on Table 9. The reduced model parameter estimates, standardized estimates, standard errors, and probabilities are found on Table 10.

Table 9

Summary of Backward Elimination Procedure for Variables Predicting Students' GPA: N=311

Variable Removed	Partial R^2	F	p
Reflection on Feelings	0.0014	0.4499	0.5029
Handling Relationships	0.0017	0.5449	0.4610

Table 10

Reduced Regression Model for Variables Predicting Students' GPA: N=288

Variable	B	SE	β	p
Intercept	68.081	3.342	0.000	0.000
Empathy	0.196	0.056	0.193	0.001
Self-Control	0.208	0.063	0.182	0.001

The data of the EQI scores and ethnicity were analyzed using a one-way ANOVA with the EQI score as the dependent variable and ethnicity as the independent variable. Data analysis for the five groups, Native American (Pr < W = .9078), Asian (Pr < W = .1453), Hispanic (Pr < W = .1511), White (Pr < W = .8711), and other ethnic background (Pr < W = .6945), indicated that scores were normally distributed in the groups. The ANOVA analysis indicated that there

were no significant differences of the EQI scores when grouped by ethnic background ($p < .4145$). Table 11 shows the results of the analysis of variance procedure. A minimum significance difference of 18.27 was reported in the analysis of variance and that difference was not found between cells. Table 12 shows the means and standard deviation of EQI scores when grouped by ethnic background.

Table 11

ANOVA for Ethnicity

SOURCE	DF	SUM OF SQUARES	F	p
Ethnicity	4	850.52	0.99	.4145
Error	314	67606.76		
Corrected Total	318	68457.27		

Table 12

Means of Scores for Ethnicity

Ethnicity	<u>n</u>	<u>M</u>	<u>SD</u>
Native American	3	155.33	12.01
Asian	20	145.70	13.69
Hispanic	224	145.91	14.15
White	63	149.05	17.27
Other	17	150.33	8.90

The data of the EQI scores and gender were analyzed using a one-way ANOVA with the EQI score as the dependent variable and gender as the independent variable. Data analysis for the two groups, male and female, indicated that scores were normally distributed ($Pr < W = .9394$ and $Pr < W = .1101$). The ANOVA analysis indicated that there were significant differences of the EQI scores where grouped by gender ($p < .0247$). Table 13 shows the results of the analysis of variance procedure. Table 14 shows that females had higher means EQI scores, 148.60, than their male counterpart, 144.91.

Table 13

ANOVA for Gender

SOURCE	DF	SUM OF SQUARES	F	p
Gender	1	1082.76	5.09	.0247
Error	317	67374.51		
Corrected Total	318	68457.27		

Table 14

Means of Scores for Gender

Gender	n	M	SD
Male	162	144.91	15.43
Female	157	148.60	13.64

The data of the EQI scores and level of education of mother were analyzed using a one-way ANOVA with the EQI score as the dependent variable and level of education of mother as the independent variable. Data analysis for the seven groups, some years of high school ($Pr < W = .7189$), high school graduate ($Pr < W = .8186$), some years of college ($Pr < W = .8699$), college graduate ($Pr < W = .5875$), some graduate work ($Pr < W = .0682$), Master's degree ($Pr < W = .1218$), and doctorate ($Pr < W = .4644$), indicated that scores were normally distributed in the groups. The ANOVA analysis indicated that there were no significant differences of the EQI scores when grouped by level of education of mother ($p < .1063$) although it could be considered to be marginally significant. Table 15 shows the results of the analysis of variance procedure. The minimum significance difference of 10.83 was reported in the analysis of variance and that difference was not found between cells. Table 16 shows that means and standard deviation of EQI scores when grouped by level of education of mother.

Table 15

ANOVA for Level of Education of Mother

SOURCE	DF	SUM OF SQUARES	F	p
Education of Mother	6	2244.31	1.76	.1063
Error	312	66212.97		
Corrected Total	318	68457.27		

Table 16

Means of scores for Level of Education of Parents

Level of Education	<u>n</u>		<u>M</u>		<u>SD</u>	
	Mother	Father	Mother	Father	Mother	Father
Some High School	26	2	146.54	138.00	7.07	7.07
High School Graduate	47	15	142.19	137.40	13.60	15.22
Some College	49	21	145.69	144.33	16.52	13.99
College Graduate	108	101	147.69	147.37	14.66	14.62
Some Graduate Work	26	26	146.54	147.85	15.17	14.96
Master's Degree	49	108	149.98	147.78	13.92	14.38
Doctorate	14	44	141.57	146.30	9.49	14.93

The data of the EQI scores and level of education of father were analyzed using a one-way ANOVA with the EQI score as the dependent variable and level of education of father as the independent variable. Data analysis for the seven groups, some years of high school ($Pr < W = 1.0000$), high school graduate ($Pr < W = .7700$), some years of college ($Pr < W = .4898$), college graduate ($Pr < W = .1656$), some graduate work ($Pr < W = .9676$), Master's degree ($Pr < W = .6749$), and doctorate ($Pr < W = .0869$), indicated that scores were normally distributed in the groups. Two subjects did not report the level of education of father. The ANOVA analysis indicated that there were no significant differences of the EQI scores when grouped by level of education of father ($p < .2158$). Table 17 shows the results of the analysis of variance procedure. The minimum significance difference of 19.27 was reported in the analysis of variance and that difference was not found between cells. Table 16 shows that means and standard deviation of EQI scores when grouped by level of education of father.

Table 17

ANOVA for Level of Education of Father

SOURCE	DF	SUM OF SQUARES	F	p
Education of Father	6	1779.04	1.40	.2158
Error	310	65857.18		
Corrected Total	316	67636.22		

The 41 items were classified into four emotional intelligence categories, each of which was represented by a factor reported by Tapia (1999). A composite score for each category was calculated by adding up all the numbers of the scaled responses to the items belonging to that category. The EQI scores were dependent variables. The students' GPA and Verbal score on the PSAT were also dependent variables. The independent variable was gender, a demographic variable, because this was the only statistically significant variable. All of these variables were observed variables.

Gender; Verbal score on the PSAT; students' GPA; and two factors of the EQI, empathy and self-control, were selected to be in the model due to the significance of their relationship. The other variables were not found to be significant and therefore were not included in the model to be analyzed. Correlations were calculated for 288 subjects and the correlations can be found in Table 18.

Table 18

Correlation Matrix of Variables in the Model

	GENDER	GPA	VERBAL	FAC1	FAC4
GENDER	1.000				
GPA	.226	1.000			
VERBAL	-.017	.503	1.000		
FAC1	.296	.180	-.012	1.000	
FAC4	.133	.117	.117	-.105	1.000

Using the model in Figure 1, a structural equation model with observed variables was analyzed using a LISREL 8. The obtained model, parameter estimates and error terms can be

found in Figure 1. The LISREL run yielded a Goodness of Fit Index (GFI) of 0.993. This GFI was found to be higher than the desired GFI of 0.90 (Schumacker & Lomax, 1996). The GFI compares the similarity of the sample and the model covariance matrix. A GFI of 0.993 indicates that 99.3% of the sample covariance matrix fits with the population covariance matrix.

The Root Mean Square Error of Approximation (RMSEA) was 0.0489. It is desired to have an RMSEA less than 0.05 for a model fit (Schumacker & Lomax, 1996). Thus the RMSEA obtained indicated a good fit. Chi-square was found to be 5.123 with 3 degrees of freedom, $p = 0.163$. A probability greater than 0.05 indicates a good fit (Schumacker & Lomax, 1996). These three statistics were sufficient to verify the model.

The path diagram in Figure 1 is a visual display of the relationships among the variables determined by the correlations. As can be seen, gender precedes the other variables because it is the only independent variable. Some connections are not diagrammed because there was no relationship among the variables. A path was revealed from gender to empathy, self-control, and GPA; a path exists from self-control to GPA and to verbal; and paths exist from empathy to GPA and from verbal to GPA.

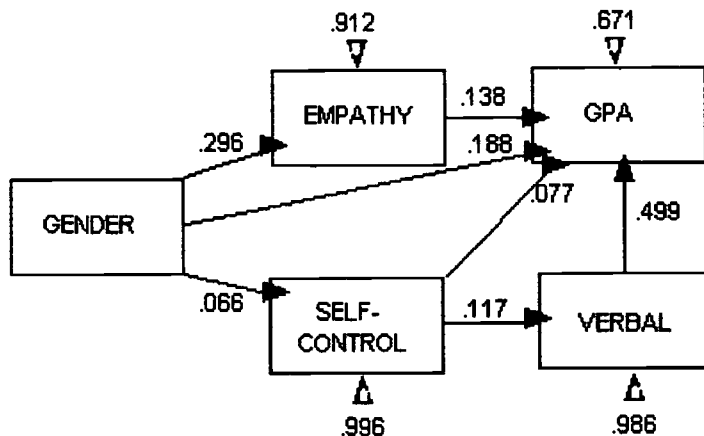


Figure 1. Structural equation model with observed variables, a path analysis

Conclusions

The trait measured by the instrument, emotional intelligence, was not correlated with IQ. There was a relationship between EQI and academic achievement as a verbal measure and with the GPA. Gender had a significant effect on EQI.

No significant differences were found when the EQI scores were grouped by ethnic background. This result is inconsistent with previous research on emotions, feelings, and some behaviors (Bagley, 1995; Berry, 1991; Ollendick, Yang, King, Dong, & Akande, 1996; Shiang, Blinn, Bongar, Stephens, Allison, Schatzberg, 1997; Witkin, 1978). It is difficult to explain this difference, unless the cultural similarity of the school environment can explain the result.

Results were consistent with studies on emotions and gender differences (Adams, Kuebli, Boyle & Fivush, 1995; Butler & Nolen-Hoeksema, 1994; Cole, Zahn-Waxler & Smith, 1994; Davis, 1995; Furnham & Greaves, 1994; Gratch, Bassett & Attra, 1995; Grossman & Wood, 1993; Gwartney-Gibbs & Lach, 1994; McConatha, Lightner, & Deaner, 1994; Miller, Silverman & Falk, 1994; Porter & Stone, 1995; Ptacek, Smith & Dodge, 1994; Sutarso, Baggett, Sutarso, & Tapia, 1996; Trobst, Collins & Embree, 1994; Tubman & Windle, 1995). However, although it is well known that men and women have different emotional characteristics, these are most likely the result of cultural imperatives rather than any inherent biological difference.

The lack of relationship of the construct with achievement but a high correlation with grade point average begs a question if not an interesting line of inquiry. It is possible that the range of GPAs was constricted due to the nature of the students, which might have an effect. It is also possible that grades are more a measure of social effectiveness than of achievement. This seems contrary to the assumptions purported in the popular literature about how a student can have high grades and still be ineffectual because of low "EQ."

This study was limited to using one very special population, so it is quite possible that different populations will not have the same results as this study. Also, the study was conducted with adolescents and may not be typical of older subjects. The age and other characteristics of the subjects in this study cannot be accepted as a "normative" group for general purposes. While such variables as gender and GPA seem rather straightforward, it is possible that the Otis-Lennon School Ability Test has characteristics that depart from more traditional individual tests of intelligence. The norms for the OLSAT do not include adults. While the EQI did not correlate with the OLSAT, it may correlate with the Binet or the Wechsler Scales.

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