ED 464 119   TM 033 800

AUTHOR   Munoz, Marco A.; Portes, Pedro R.
TITLE   Predictors of Academic Achievement: The Effects of
                Demographic and Psychosocial Factors.
PUB DATE   2001-00-00
NOTE   29p.
PUB TYPE   Reports - Research (143)
EDRS PRICE   MF01/PC02 Plus Postage.
DESCRIPTORS   *Academic Achievement; Advanced Placement; Depression
                (Psychology); Economic Factors; *High School Students; High
                Schools; Parent Child Relationship; *Prediction; Rural
                Youth; School Demography; Time Management; Urban Youth
IDENTIFIERS   *Psychosocial Factors

ABSTRACT
        This study examined the effect of specified demographic and
psychological variables on the academic achievement of high school students
from urban and rural settings (n=177). Psychosocial variables considered in
this study were familism (perceived closeness of the family), perceived
discrimination, time management, and home and school factors. Results provide
information on the predictive factors associated with academic achievement
among high school students (R square=.32). The significant psychosocial
predictors were advance program placement, economic condition, time
management (i.e., as related to studying or doing homework), depression
scale, parent-child conflict scale, and school location. Support for
continued use of measures of psychosocial factors in the study of predictors
of academic achievement was established. Implications for theory, practice,
and future research are discussed. (Contains 2 tables and 47 references.)
(Author/SLD)

Running Head: Predictors of Academic Achievement

Predictors of Academic Achievement: The Effects of Demographic and Psychosocial

Factors

Marco A. Muñoz

Pedro R. Portes

University of Louisville

2

Abstract

The present study examined the effect of specified demographic and psychosocial

variables on the academic achievement of high school students from urban and rural

settings (N = 177). Psychosocial variables considered in this study were familism,

perceived discrimination, time management and a host of home and school factors.

Results provide information on the predictive factors associated with academic

achievement among high school students (R square = .32). The significant psychosocial

predictors were advance program placement, economic condition, time management (i.e.,

as related to studying or doing homework), depression scale, parent-child conflict scale,

and school location. Support for continued use of measures of psychosocial factors in the

study of predictors of academic achievement was established. Implications for theory,

practice, and future research are discussed.

Predictors of Academic Achievement: The Effects of Demographic and Psychosocial

Factors

Education is the primary method by which youth are prepared for an increasingly

complex world. Educational success has been inextricably linked with higher future

socioeconomic status (SES), prestige and, subsequently, a higher quality of life (Jencks et

al, 1972). The centrality of education, and it's primary index academic achievement, in

adapting to and succeeding in America today can hardly be overstated (Egginton &

Munoz, 1998). A child's adaptation to school may primarily be gauged by his/her

academic achievement. Given the status literacy holds as an indicator of future success,

academic achievement has been examined and researched extensively in the social

sciences, particularly in terms of status attainment and issues concerning inequalities

(Coleman et al, 1966; Marjoribanks, 1995).

Still, there appears to be much disagreement as to the social and individual

ingredients necessary for high levels of academic performance. Since the Coleman Report

(Coleman et al, 1966), the importance of SES as a factor related to academic achievement

has been recognized. In early studies, SES was purported to explain most of the variance

in academic achievement; current research (Roeder, 1999; Munoz & Dossett, 2001) also

continues to support the highly predicting role of SES on student outcomes as measured

by standardized testing. On the other hand, however, a meta-analysis determined that SES

accounts for only about 5% of the variance in performance (White, 1982).

While SES is clearly one relevant factor, other research (e.g., Carver, 1975) has

suggested that individual and socially laden variables are also quite influential in their

impact on educational success and achievement. Research in the social sciences has

suggested that features that are school-based, home-based and/or student-based may affect academic achievement.

School-based factors which have been studied and that may influence school adaptation, and subsequently academic performance, include school size (Albritton, 1984; Caldas, 1993), school uniforms (Hoffler-Riddick & Lassiter, 1996) and school climate (Anderson, 1982; Weishen & Peng, 1993). Teacher expectations (Rampaul et al, 1984), "warm teacher involvement" (Glasser, 1969), and student teacher relationships (Niebuhr, 1999) have also been considered.

Although not as extensively examined as school factors, home factors also have been investigated as to their impact on educational performance. Parental expectations (Hossler & Stage, 1992), parental behavior and involvement (e.g., Bogenschneider, 1997), maternal employment status (Abbot, 1991; Beyer, 1995), and parental marital status/divorce effects (Cull, 1994; Kaye, 1989) have been studied.

Others have viewed the individual student traits associated with achievement. Previous studies have addressed self-concept effects (Padwal, 1984), social competence (Wentzel, 1991), depression (Pugh-Antich, 1993), birth order (Cherry, 1990), gender differences (Dawson & McInerney, 1998), locus of control (Hanson, 1994), learning style (Farrel-Moskwa, 1992), and substance use (Andrews, 1991), as well as a number of other factors.

While it appears that various factors may have an impact on academic achievement, in the above-cited references most of these factors were examined in isolation from each other. The present study attempts to add to and perhaps broaden the scope of research regarding the factors associated with academic achievement. More

specifically, this research focused on psychosocial factors that are associated with academic achievement within a mainstream population. These psychosocial factors include such variables as familism (perceived closeness of the family), time management, perceived discrimination, achievement motivation, self-esteem, and a host of home/school climate factors. This study explores the above psychosocial variables and their influence on academic achievement in a fashion that has often been overlooked, i.e., by considering many of these variables simultaneously in predictive models. The previous study with an immigrant population (Portes, 1999) did use a similar model examining variables simultaneously, however neither involuntary minorities nor a mainstream population were included in the data analysis.

This study is the initial project using a mainstream population for a larger on-going research program conducted utilizing the YAGQ-R to examine the effects of psychosocial variables on academic achievement. Again, the information collected here involves locally situated students and their families and serves as data which allows for comparative analysis with immigrant groups.

While some of the variables considered in this study may at first appear unrelated or atheoretical in nature, the importance of examining the environmental features related to static parameters such as academic achievement is suggested by cultural historical theory (CH). CH has grown out of the works of Vygotsky (1934/1986) and focuses on the social construction of the intellect. Central concepts in CH involve the assertion that while learning is developmental in nature, it is learning in a social context that precedes development. Learning is seen as occurring within a social context known as the activity setting (AS), a unit of analysis for CH (Gallimore, Goldenberg & Weismer, 1992; Tharp

& Gallimore, 1988).   Essentially, the AS includes the who, what, where, when and why

of learning. There are five dimensions or features that define the AS : (1) the personnel

present, (2) the motivations and purposes of the actors, (3) the scripts used, (4) the task

demands or operations of the activity, and (5) the goals, beliefs and values involved

(Gallimore, Goldenberg & Weisner, 1992; Tharp & Gallimore, 1988; Weisner, Gallimore

& Jordan, 1988). Embedded in the AS are the motivations, social aspects and specific

tasks where assisted development and assisted performance occur. This assisted

performance, i.e., what the child can do with help, is the primary method of development

within CH. The aspects of the AS can serve as factors to explore when studying

academic achievement.

In summary, there appear to be gaps in the knowledge base regarding the effects

of psychosocial variables on student performance across various populations. Although

some research using static variables has been evident, few studies consider the

simultaneous effect of multiple psychosocial factors on the achievement of students.

Also, the impact of these variables on achievement is unclear, particularly when

controlling for demographic variables such as SES. There may be gender and cultural

differences also that have previously not been examined. While there is information

available on the academic achievement effects of these variables among certain

immigrant populations (Portes, 1999), there is not information available as yet that would

lend itself to comparative analyses using students from minority, immigrant and

mainstream cultures. There is much unknown as to the similarities and differences that

exist between immigrants and mainstream populations in regard to how certain

psychosocial variables mediate achievement. This is particularly true when considering the effect of multiple psychosocial factors simultaneously on the achievement of students.

The primary goal of this study is to investigate the effect of psychosocial factors on the academic achievement of 8th and 9th grade locally situated students. The factors considered are based on previous research (Portes, 1999) using the Youth Adaptation and Growth Questionnaire-Revised (YAGQ-R). These factors include self-esteem, academic achievement motivation, time management, familism, number of friends, and certain home/school features. To date, the research with the YAGQ-R has focused on the achievement of immigrant status students. This study will provide information regarding the relative importance of psychosocial predictor variables on academic achievement among the majority culture.

This study will be important in adding to the body of research on the academic achievement of high school students (9th graders). With increased information on the factors that are linked to higher academic achievement, student performance can be enhanced. While some factors affecting the academic achievement of students are not easily influenced (such as SES), if other more malleable factors can be identified specific recommendations can be made to improve student performance. A better understanding of the variables affecting student learning can help guide parents and educators toward interventions to optimize the likelihood of high academic achievement.

The overarching research question is the following: Which psychosocial and demographic variables can be seen to effect the academic achievement of high school students?

Method

Subjects

Ninth grade students from a rural high school in central Kentucky were invited to participate in the study, as were students from a large urban high school in Kentucky. The total number of surveys returned and included in the analysis was 174. As expected, the subjects were predominately European-American (Caucasian), with a nearly equal number of completed surveys submitted by male and female subjects. Roughly 300 students were available for participation in the study from the rural and urban schools. Of these, 200 returned parental permission forms and surveys. Due to missing information, only 174 surveys were included in the data analysis. Table 1 displays a profile of the participating students.

Table 1

Profile of Participating Students (N = 174)

Variables	Mean	SD
GPA	3.04	.63
Gender	1.61	.49
Age	14	.53
Father Education	3.99	1.05
Mother Education	4.09	1.18
Economic Condition	1.43	.53
Advance Program	1.71	.46
Depression Scale	4.66	1.88
Parent-Child Conflict Scale	6.91	1.43
Attitude toward school	1.22	.49
Friends	9.78	21.14
Studying or doing homework	2.66	1.66
School location (rural, urban)	.46	.50

Instruments

After securing parental and local school administration permission, volunteer subjects were asked to complete the Youth Adaptation and Growth Questionnaire-Revised (YAGQ-R). This measurement instrument was initially developed a study called Children of Immigrants: The Adaptation of the Second Generation, which involved students in the Miami and San Diego areas (Portes & Rumbaut, 1995). In the original study, which was conducted Spring, 1992, 5267 second-generation 8th and 9th grade students were interviewed using the YAGQ-R.

Included in the YAGQ-R are measures of both demographic and psychosocial variables that are believed to impact academic achievement. The YAGQ-R was constructed to gather a rich array of data on the demographic characteristics, nativity and citizenship of the respondent's and their parents, family size and structure, socioeconomic status (parents' education level and occupation and home ownership), ethnic and language information, respondent's hours spent daily on homework and watching television, educational and occupational aspirations, perceptions and experiences of discrimination, as well as attitudinal and other psychosocial variables, including measures of self-esteem, depression and parent-child conflict. Student GPA and standardized achievement test scores were collected from the school records and used as the dependent variable in regression procedures. Many of these variables and factors were found to be related to academic achievement. In the current study, these same variables were used to predict achievement among the students. Descriptions of these variables are presented below.

Variables indicative of demographics included: parental home ownership (low scores reflect homeownership), father's education level, father's employment status, subject's age, and perception of families economic situation as compared to five years earlier (low scores indicate a better economic situation). These variables are likely to be reflective of SES. Low SES has been found to negatively impact academic achievement in prior studies (e.g. Carver, 1975; White, 1982). Age is considered since it may be suggestive of grade retentions due to academic difficulties. The student's perception of the family's economic situation as compared to five years earlier indicates the direction of family mobility and is associated also with SES.

Variables indicative of psychosocial factors included familism, time management, depression, parent-child conflict, and peer influence. A Familism scale was constructed from the following items: (a) If someone has the chance to help a person get a job, it is always better to choose a relative rather than a friend; (b) When someone has a serious problem only relatives can help; and, (c) When looking for a job, a person should find a job near his/her parents even if it means losing a better job somewhere else. Low scores on the Familism scale reflect the respondent's endorsement of individualistic values and have been found (Rumbaut,1994) to be related to higher student achievement.

In the prior study, the way in which the student chose to use his/her time was found to impact academic achievement. Time management here is considered by a proportion of the time spent on homework to the total time the student spends watching television or playing computer/video games for recreational purposes. Higher scores reflect increased time on homework as compared to time watching television or playing

computer/video games. Higher scores are suggestive of more effective time management practices.

Depression was found to have a negative impact on achievement in the prior study. Depressive symptoms were measured by using a 4-item subscale from the Center for Epidemiological Studies-Depression (CES-D) scale, including (a) I felt sad; (b) I could not get "going;" (c) I did not feel like eating and my appetite was poor; and, (d) I felt depressed. These items have been found to be predictive of depressive disorders among adolescents (Vega et al., 1993; cf. Vega and Rumbaut, 1991). High scores indicate the presence of depressive symptoms.

Conflict between the parent and child was found in the prior study to be related to lower academic achievement. The Parent-Child Conflict scale was derived from responses to the following items: (a) My parents do not like me very much and (b) My parents are usually not very interested in what I say.

Total number of friends is considered an indicator of the role of peer influence on academic achievement. Respondents were asked to report the number of friends by the following: How many close friends do you have in school?

Finally, for the purpose of this study, academic achievement, the dependent variable, was calculated as a composite/average of student scores in reading and math on standardized group achievement tests. This information was obtained from the cumulative school records.

13

Design and Procedures

The research design was quantitative in nature, specifically correlational

(Pedhazur, 1982). Multiple regression is a recommended procedure when the researcher

is interested in predicting a dependent variable from multiple predictors (Stevens, 1996).

The least squares criterion was used for these analyses (i.e. the sum of the squared

estimated errors of prediction is minimized). The assumptions for using multiple

regression were met and the Cook distance did not show outliers (Stevens, 1996).

Reliability analyses were conducted to ensure consistency. Coefficient alpha for

the composite score was .66 for the depression scale, which exceeded the minimum

coefficient of internal consistency (.60) recommended by Anastasi (1968) for use of

composite scores in statistical analysis. Also, the coefficient alpha for the composite score

of the parent-child conflict scale was .70, also exceeding the minimum recommended for

social science research. The familism scale had a coefficient alpha of .45. Finally, the

self-esteem scale and discrimination scale did not meet the minimum level for use of

composite scores in statistical analysis; as result, these measures were excluded from the

study.

In terms of procedures, after subjects completed the YAGQ-R, standardized

achievement test scores were obtained from available school records. As with the prior

study by Portes (1994), the achievement test scores were used as the dependent variable

in a 2-model least-squares regression.

The first model uses the following demographic variables as predictors of

academic achievement: home ownership, highest level of education completed by the

father, father's employment status, student age, advanced program placement, and economic situation as compared to 5 years earlier.

In the second model, psychosocial variables were entered. These variables included: achievement motivation, perceived discrimination, student employment, time management, familism, who helps with homework, parent involvement in schooling, and how well the student likes school. The procedure of entering demographic variables in the regression first, followed next by the psychosocial variables, allows for an analysis of the effect of the psychosocial variables impact on academic achievement while controlling the influence of specified demographic features.

Results

Table 2 displays Pearson correlations for the dependent and selected independent variables. Highest correlations are found between advance placement program and student achievement (.37). Also, a high correlation was found between attitude toward schooling and student achievement (.34). In addition, another high correlation was found between school location and student achievement (.36). Father and mother level of education was highly correlated to student achievement (.23 and .25, respectively). Finally, depression and parent-child conflict scales are highly related to academic achievement (.22 and .23, respectively).

Table 3 shows the results of a least squares regression used to predict academic achievement, the dependent variable. The overall multiple R square for the regression, .32, indicates that 32% of the variance in the dependent variable (academic achievement) is explained by the included independent variables.

Table 2

Intercorrelations Between Variables (N = 174)

Var	1	2	3	4	5	6	7	8	9	10	11
1. GPA	--	-.17*	.23*	.25*	-.29*	-.37*	-.22*	.23*	-.34*	.19*	-.36*
2. Age		--	-.04	-.01	.09	.21*	-.07	-.12	.11	.02	.01
3. Feduc			--	.38*	-.17*	-.26*	.01	.03	-.02	.01	-.38*
4. Meduc				--	-.20*	-.31*	.01	.09	-.10	-.03	-.44*
5. Economic					--	.25*	.01	.04	.01	.05	.29*
6. Advance P						--	.01	-.36*	.13*	-.07	.03
7. Depression							--	-.36*	-.29*	.10	-.13*
8. Parent-Child								--	-.29*	-.10	.08
9. Attitude									--	-.10	.04
10. Studying										--	.04
11. School loc											--

Table 3

Hierarchical Regression Analysis for Variables Predicting Student Achievement (N = 174)

Variable	$\underline{B}$	$\underline{SE}\ \underline{B}$	β
Step 1			
Advance program placement	-.40	.09	-.29*
Economic condition	-.13	.09	-.11
Step 2			
Studying or doing homework	.08	.02	.20*
Depression scale	-.05	.02	-.15*
Parent-child conflict scale	.06	.03	.13
Step 3			
School location	-.26	.10	-.21*

Note. R^2 = .18 for Step 1; ΔR^2 = .11 for Step 2; ΔR^2 = .03 for Step 3

*$\underline{p} < .05$

Although age, gender, father's education, whether or not the father was currently employed, student's perception of the family's economic situation presently as compared to five years earlier, Advanced Program placement and home ownership were entered in to the first demographic control block, only Advanced Program placement and home ownership were found to be statistically significant. The demographic block accounted for 18% of the variance in academic achievement.

In the second block, the contribution of psychosocial variables was considered. Studying or doing homework, depression scale, and parent-child conflict scale were found to explain an additional 11% of the variance in achievement after controlling for the above demographic variables. Finally, school location (urban, rural) added an extra 3% of explained variance to the regression equation.

The raw and the standardized slope coefficients of the regression variables are shown in Table 2. From the table, it can be seen that advance program placement is the most significant predictor with a Beta = .29 (p = .000). It is followed by the time management variable related to time devoted to studying or doing homework and the school location (Beta = .20 and Beta = .21, respectively).

Discussion

Academic achievement, as the key indicator of school adaptation, is an important facet of the high school-aged students' overall adjustment and has implications for future employment, quality of life and financial status. While early research (e.g. Coleman, 1966) suggested socio-economic status of the family was paramount in influencing academic achievement, more recent research has indicated that SES is but one important factor affecting achievement. The student's educational experience appears to be

influenced by a host of variables that include both demographic and psychosocial influences.

The research question for the present study focused on the effects of certain theoretically derived psychosocial factors on the academic achievement of mainstream high school students when controlling for specified demographic variables. In total, 32% of the variance in achievement was explained by the demographic and psychosocial variables considered in this study.

Results from the current study continue to ascribe significance to demographic variables including indicators of SES. Demographic features, including those reflecting SES, were found to be significant and explained 18 percent of the variance in the achievement of this locally-situated population. The 18% of the variance accounted for by demographic variables in this study is generally comparable to national research; large studies have found a rather wide range of explained variance (Carver, 1975; Coleman, 1966; Munoz & Dossett, 2001; Roeder, 1999; White, 1982) of achievement based on demographic influences, with the lower limits being 5%, with an upper range of over 40%.

It was, however, the impact of the psychosocial variables on achievement that were the primary emphasis in the present study. It was hypothesized that a significant amount of the variance in academic achievement would be explained by the psychosocial variables after controlling for demographic factors. This was found to be the case as 11% of the variance in achievement, above and beyond the influence of demographic factors, was accounted for by the psychosocial factors.

Prior research has most often considered psychosocial variables in isolation and found these to account for only a relatively small amount of the variance found in educational performance. The academic achievement picture becomes somewhat clearer in light of the current study as the variables used in the regression were able to account for a relatively large (32%) of the variance in academic achievement. Among the demographic variables, Advance Program placement and the family's economic situation were significant. The most significant psychosocial predictors of academic achievement in this study were studying or doing homework, the depression scale, and the parent-child conflict scale.

Other features associated with the student's upbringing and environment, a rather obvious factor related to academic achievement, may impact advanced program placement. The decision to place a student in the advanced track may be influenced by family involvement and support of educational pursuits, achievement motivation, education levels of parents and SES. However, in the schools represented in this study, a large part of the criteria for inclusion in Advanced Placement programs involves academic achievement. It should be noted that in this study AP placement was entered in the demographic block to control for it's effects on achievement.

Home ownership, an indicator of SES, was found to contribute to academic achievement. While the amount of the variance in academic achievement that is associated with socio-economic status has remained rather elusive (White, 1982), the present study found that SES related variables continue to be significant. Why SES has consistently been found to be a predictor of academic achievement is beyond the scope of the present study. Still, it would appear that families with high SES, or those that have

reached some materialistic measure of success would have a better understanding of the scripts, beliefs and behaviors conducive to achievement.

Time management, as measured by a ratio of time spent of homework divided by time spent watching television or playing video games, was found to be a significant predictor of academic achievement. The ability to manage one's time well is a strategy that leads to academic achievement. What is not unraveled by the current study is the extent of family influence on time management practices. The variable may represent an internalized script for the adolescent suggesting self-regulation, or may be due to a larger climate of family support of educational activities. Depression and parent-child conflict scales appear to be another element to be considered when understanding student academic achievement. Higher levels of depression and parent-child conflict have a negative impact on student learning.

It is clear that there are number of factors which impact academic achievement. In the present study, using multiple features of a student's lifestyle may serve to provide a more accurate snapshot of the influences of academic achievement as compared to the methods employed by commonly accepted national studies which are typically univariate, or at most consider only a limited number of these variables.

The present study considered six demographic features in the first model regression and controlled for these when examining the influence of eight psychosocial factors in the second model. The demographic variables considered included parent's home ownership, highest level of education completed by the father, whether or not the father is currently employed, student's age, Advanced program status, and the student's perception of the family's economic situation as compared to five years earlier. While

these factors explained 18% of the variance in academic achievement, which is significant, the specified psychosocial factors employed in the second model accounted for an additional 11% of the variance that is also significant.

The eight psychosocial variables considered included: achievement motivation, perceived discrimination, student employment status, time management practices, familism, and home/school variables such as who helps with homework, how involved the parents are in the student's schooling, and how well the student likes school. Considered simultaneously, these regression variables are capable of explaining a large degree of the variance in academic achievement.

The demographic and psychosocial variables in this study account for 32% of the variance in academic achievement, a finding consistent with those of a previous study (Portes, 1999) that employed the same survey instrument, but a different data base composed of an immigrant adolescent population.

In summary, the present study has helped to add to the existing body of research regarding the academic achievement of adolescents. Findings from the present study lend support to utilizing a cultural historical perspective when examining influences on academic achievement along with multivariate analyses that consider the impact of demographic and psychosocial variables. It appears that student, home and school influences have a significant effect on the achievement of this population. Specifically, home environments that foster effective time management appear to positively influence achievement. Support for continued use of the YAGQ-R was established.

This study had multiple limitations. Although an adequate sample size was available for the statistical procedures conducted, the sample is considered relatively

small. This results in threats to the internal validity of the study. Hopefully subsequent research will include a larger sample base and allow for further support of the results of the present study. A larger sample size might also allow for utilizing SES levels in the analysis which could further isolate and examine the effects of SES on academic achievement.

Secondly, in regards to sampling constraints, the data used were obtained from only two schools in one general geographic location. This may affect the generalizability of the results to the national population. There may have also been sampling bias in that all subjects were volunteers and this self-selected group may not accurately represent the population at large.

Thirdly, as with any self-report measure, there is some concern that the students may not have revealed information they may deem "negative." Whether self-report measures in general accurately reflect actual behavior or are too heavily influenced by the individual's tendency to present himself or herself in a socially acceptable fashion has been debated. Fourth and final, while the survey (YAGQ-R) has been used in large studies previously, there are potential shortcomings with this instrument. Although the psychosocial factors used in this study appear to have theoretical importance, it is not possible to identify all, or even most, of the factors that may influence achievement. It is possible that significant variables were not included in the present data collection and analysis procedures.

Future research may unravel aspects of achievement motivation and time management, emphasizing the degree to which these may be self-regulated by the student and fostered by the home environment. This might involve direct reporting by the parent

which could also be used to validate certain student responses/perceptions. There also appears to be unknown aspects as to the influence of depression and self-esteem on academic achievement, achievement motivation, and time management practices.

In conclusion, the present study indicates that a cultural historical model using multivariate statistical analysis as relevant for the study of the influence of psychosocial factors and their effect on academic achievement. While demographic variables such as SES exhibit influence on academic achievement, the present study found that psychosocial variables such as time management, depression, and parent-child relationships are significant as well. Other factors such as achievement motivation and other home and school factors appear relevant and require further research.

References

Abbott, B. L. (1991). Maternal employment and adolescent girls. Paper presented at the Biennial Meeting of the Society for Research in Child Development (Seattle, WA, April 18-20, 1991).

Albritton, T. (1984). A review of recent literature on the effects of class size, with implications for English and language arts instruction. NT, p.42.

Anastasi, A. (1968). Psychological testing (3rd Edition). New York: MacMillan.

Anderson, C.S. (1982). The search for school climate: A review of the research. Review of Educational Research, 52: 368-420.

Andrews, J., & Others (1991). Adolescent substance use and academic achievement & motivation. 7p.; Paper presented at the Annual Convention of the American Psychological Assoc. (99th, San Francisco, CA, Aug. 16-20, 1991).

Ballantine, R. J. (1981). What research says about the correlation between athletic

participation and academic achievement. U.S.; Illinois; p.9 v1.

Beyer, S. (1995). Maternal employment and children's academic achievement: Parenting

styles as mediating variable. Development Review, (15, n2) p. 212-253.

Bogenschneider, K., & Steinberg, L. (1994) Maternal employment & adolescents'

academic achievement: A development analysis. Sociology of Education, (67, n1)

p. 60-77.

Bogenschneider, K. (1997) Parental involvement in adolescent schooling: A proximal

process with transcontextual validity. Journal of Marriage and the Family, 59,

718-733.

Caldas, S. J. (Mar.-Apr. 1993). Reexamination of input and process factor effects on

public school achievement. Journal of Educational Research; Vol.86 (4) 206-214.

Caldas, S. J., & Bankston, C. III. (May-June 1997) Effect of school population and

socioeconomic status on individual academic achievement. Journal of Educational

Research, Vol. 90 (5), 269-277.

Carver, R. P. (1975). The Coleman report: Using inappropriate designed achievement

tests. American Educational Research Journal, Vol. 12 (1), 77-86.

Cherry, C. M. (1990). The relationship between birth order and academic achievement.

ERIC Document Reproduction Service.

Coleman, J.S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. J., Weinfeld, F.

D., & York, R. L. (1966). Equality of educational opportunity. Washington, DC:

US Government Printing Office.

Dowson, M., & McInerney, D. M. (1998). Age, gender, cultural, and socioeconomic differences in students' academic motivation, cognition, and achievement. Paper presented at the Annual Meeting of the American Educational Research Association. (San Diego, CA, April 13-17, 1998).

Egginton, E., & Munoz, M. A. (1998). Education and equality. Social Sciences Education, 2, 119-142.

Farrell-Moskwa, C. (1992). The relationship between learning style and academic achievement. p. 37; 1 - M.A. Thesis, Kean College of New Jersey.

Glasser, W. (1969). Improving school climate and culture. American Association of School Administrators.

Hanson, S.L. (1994) Lost talent: Unrealized educational aspirations and expectations among U.S. youths. Sociology of Education, 67, 159-183.

Hoffler-Riddick, P. Y., & Lassiter, K. J. (1996). No more "sag baggin": School uniforms bring the focus back to instruction. Schools in the Middle; v5, n4, p. 27-28.

Jencks, C., Smith, M., Acland, H., Bane, M. J., Cohen, D., Gintis, H., Heyns, B., & Michelson, S. (1972). Inequality: A reassessment of the effect of family and schooling in America. New York: Basic Books.

Marjoribanks, K. (Feb. 1995). Factors affecting the learning environments and school-related outcomes of Australian adolescents. Journal of Social Psychology, Vol. 35 (1) p. 89-95.

Marjoribanks, K. (Feb. 1996). Ethnicity, proximal family environment, and young adolescents' cognitive performance. Journal of Early Adolescence, 12 (3) p. 340-359.

Munoz, M. A., & Dossett, D. (2001). Equity and excellence: The effect of school and

sociodemographic variables on student achievement. Journal of School

Leadership, 11, 120-134.

Niebuhr, K. E. (1999). An empirical study of student relationships and academic

achievement. Education; Vol. 119 (4) p.679-681.

Padwal, R. S. (1984). The relationship of self-concept to intelligence, anxiety and

academic achievement. Saskatchewan School Trustees Association, Regina.

Research Centre, 14p. (1).

Pedhazur, E. J. (1982). Multiple regression in behavioral research: Explanation and

prediction. New York: CBS College Publishing.

Portes, A. (1996). Culture and ethnicity in educational psychology. In Calfee & Berliner,

D. (Eds.). The Handbook of Educational Psychology. McMillian Publishing,

N.Y.

Portes, A., & MacLeod, D. (Oct. 1996). Educational progress of children of immigrants:

The roles of class, ethnicity and school context. Sociology of Education, Vol. 69

(4) p. 255-275.

Portes, P. (1999). CITE.

Portes, P., & Zady, M. F. (1996). Socio-psychological factors in the academic

achievement of children of immigrants: Examining a cultural history puzzle.

Complete citation!!!!

Puig-Antich, J., Kaufman, J., Ryan, N.D., Williamson, D.E., Dahl, R., Lukens, E., Todak,

G., Ambrosini, P., Rabinovich, H., & Nelson, B. (1993). The psychosocial

functioning and family environment of depressed adolescents. J. Am. Acad. Child
Adoles. Psychiat. 32: 244-253.

Rampaul, W. E. and Others (Sept. 1984). The relationship between academic
achievement, self-Concept, creativity, and teacher expectations among native
children in a Northern Manitoba School. Alberta Journal of Educational Research,
Vol. 30 (3) p. 213-225.

Rector, C. L. (Sept. 1995). A longitudinal study of anxiety: Noted relationships between
anxiety, depression, parenting style and academic achievement. DAI-A, Vol. 56
(3) p. 872.

Roeder, P. W. (1999). Education reform and equitable excellence: the Kentucky
experiment [On-line]. Available: RDSpub@aol.com

Rogers, C. M., Smith, M. D., & Coleman, J. M. (Feb. 1978). Social comparison in the
classroom: The relationship between academic achievement and self-concept.
Journal of Educational-Psychology, Vol. 70 (1) p. 50-57.

Stevens, J. (1996). Applied multivariate statistics for the social sciences. Mahwah, NJ:
Lawrence Erlbaum Associates.

Tharp, R.G., & Gallimore, R. (1988). Rousing minds to life. Cambridge University Press,
MA.

Tharp, R.G. (1989). Psychocultural variables and constants, effects on teaching and
learning in schools. American Psychological Assoc. Vol.4 (2), p.968-979.

Vigotsky? CITE

Weisen, N., & Peng, L. (1993) Variables predicting students' problem behaviors. Journal
of Educational Research, 87, 5-17.

Wentzel, K. R. (1993). Relations between social competence and academic achievement in early adolescence. Child Development; v62 n5 p1066-78 October 1991.

Wentzel, K. R. (1993). Does being good make the grade? Social behavior and academic competence in middle school. Journal of Educational Psychology, Vol. 85 (2) p. 357-364.

Wentzel, K. R. (1996) Social and academic motivation in middle school: Concurrent and long-term relations to academic effort. Journal of Early Adolescence, Vol. 16 (4) p. 390-406.

Wentzel, Kathryn R.; Caldwell, Kathryn (1997) Friendships, peer acceptance, and group membership: Relations to academic achievement in middle school. Child Development; v68

White, K. R. (1982). The relationship between socioeconomic status and academic achievement. Psychological Bulletin, 91, 461-481.

ERIC®

REPRODUCTION RELEASE

TM033800

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title:	Predictors of Academic Achievement
Author(s):	Marco A. Munoz and Pedro R. Portes
Corporate Source: University of Louisville	Publication Date: 2001

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2A documents	The sample sticker shown below will be affixed to all Level 2B documents
PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY _____Sample_____ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 1	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY _____Sample_____ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2A	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY _____Sample_____ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2B
Level 1 ↑ [X]	Level 2A ↑ [ ]	Level 2B ↑ [ ]
Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.	Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only	Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

Sign here,→ 'ease

Signature: *Marco Munoz*	Printed Name/Position/Title: Marco A. Munoz Evaluation Specialist	
Organization/Address: 3332 Newburg Rd Louisville, KY 40218	Telephone:	FAX:
	E-Mail Address:	Date: 03/28/02

(over)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

**ERIC CLEARINGHOUSE ON ASSESSMENT AND EVALUATION
UNIVERSITY OF MARYLAND
1129 SHRIVER LAB
COLLEGE PARK, MD 20742-5701
ATTN: ACQUISITIONS**

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com

EFF-088 (Rev. 2/2000)