

# Personality Traits, Self-Esteem and Academic Achievement in Secondary School Students in Campania, Italy

Alda Troncone\*, Maria Letizia Drammis, Alida Labella

Department of Psychology, Second University of Naples, Caserta, 81100, Italy

\*Corresponding Author: [alda.troncone@unina2.it](mailto:alda.troncone@unina2.it)

Copyright © 2014 Horizon Research Publishing All rights reserved

**Abstract** For years educators have attempted to identify the effective predictors of scholastic achievement and several personality variables were described as significantly correlated with grade performance. Since one of the crucial practical implications of identifying the factors involved in academic achievement is to facilitate the teaching-learning process, the main variables that have been associated with achievement should be investigated simultaneously in order to provide information as to their relative merit in the population examined. In contrast with this premise, limited research has been conducted on the importance of personality traits and self-esteem on scholastic achievement. To this aim in a sample of 439 subjects (225 males) with an average age of 12.36 years ( $SD = .99$ ) from three first level secondary school classes of Southern Italy, personality traits, as defined by the Five Factor Model, self-esteem and socioeconomic status were evaluated. The academic results correlated significantly both with personality traits and with some dimensions of self-esteem. Moreover, hierarchical regression analyses brought to light, in particular, the predictive value of openness to experience on academic marks. The results, stressing the multidimensional nature of academic performance, indicate a need to adopt complex approaches for undertaking action addressing students' difficulties in attaining good academic achievement.

**Keywords** Big Five Factors, Personality Traits, Self-Esteem, Socioeconomic Status, Academic Achievement

---

## 1. Introduction

Investigation of the factors at the basis of scholastic achievement is at the centre of one of the areas of research of major interest for education psychology because of its considerable implications for both learning and teaching. Understanding the variables able to influence success in the

educational setting may permit rapid recognition of particularly able students and potentially problematic students and contribute to the development of effective strategies aimed at refining teaching performance. Poropat[1] stresses that the possibility of predicting academic success takes on a particularly significant connotation in the 34 countries of the OECD (Organisation for Economic Cooperation and Development) where an average of 6.2% of gross domestic product is spent on education.

The characteristics of the scholastic experience and the relative achievement are described as the product of the dynamic interaction of a hierarchy of factors. Among these particular importance is attributed to cognitive ability [2], gender [3,4], motivation to succeed [5,6], family socio-economic status [7,8], parental involvement in scholastic activity [9], class group composition [10]. Moreover, there is considerable evidence describing the relationship between personality and academic success, coming from differing theoretical models of reference which measure differing aspects of personality. Eysenck's model for describing personality [11] has been used to show a negative association between academic performance and some aspects of the personality like Neuroticism [12-15], Extroversion [15,16] and Psychoticism [17,18]. Other studies which use the Five Factor Model (FFM) for describing the personality, emphasize the role of Big Five personality traits in predicting academic achievement [5,12,13,19-23].

Another sector of research on factors at the basis of academic performance stresses the weight of self-esteem on the results of the student. In many studies the relationship between personal opinions, perception of self, trust in ones abilities and academic success, appears characterized by a positively correlated relationship [24-27]; in other words, it is believed that higher self-esteem correlates to academic success and vice versa. Critical studies of this literature, however, show that, in most of the research, a positive, but often weak, relationship emerges between the two elements and that there is no information on the causal direction of the

hypothetical link [28,29].

Although there is a great deal of literature on the link between personality and achievement and self-esteem and achievement, studies examining the links between personality characteristics, self-esteem and student performance simultaneously are less represented. We have chosen self-esteem and personality traits because we believe they are aspects associated with academic performance and are areas where it is possible to direct defined intervention so as to prevent academic underperformance and failure.

This study, considering personality and self-esteem as independent variables, aimed at verifying whether, and to what extent, each of them is significantly linked to the criterion of academic achievement and is able to predict it. Along with personality and self-esteem, the socioeconomic status (SES) of students was considered, because of the well-known effects of SES on academic achievement [7,8]. A further scope of the study was to examine the presence of differences in the links between the predictors and the dependent variable on the basis of gender. The link between predictors and criterion shall be analyzed and school marks from three different times of the academic year as indicators shall be considered so as to verify the stability of the predictors.

## 2. Materials and Methods

### 2.1. Sample

The study was carried out on students recruited from the first, second and third years of a secondary school in Campania (grades 6, 7 and 8 US). Students aged 10 to 14 years were included in the study. Students with a confirmed diagnosis of psychic and/or physical disturbance, according to their teachers' assessment, were excluded from the study. Consent was sought from the parents of a total of 500 students. 61 refused because they did not agree with the procedure as explained by staff. Parents who gave their consent were asked to complete the form for assessment of SES. The final sample consisted of 439 pupils (225 males, 214 females) with mean age of 12.36 years (SD= 0.99).

### 2.2. Measures

#### 2.2.1. Academic Achievement

Academic achievement was evaluated on the basis of marks obtained by each student in 13 subjects: Italian, history, geography, math, science, technology, English, a second foreign language, art and image, motor science and sport, music, religion and civics. The evaluation of academic achievement for all students was made through the calculation of the averages of the final marks obtained in the previous academic year (2010-2011). For a subgroup of students (N=254) academic achievement was further evaluated through the calculation of averages of the first term marks and the final marks for the end of the current

school year (2011-2012). For students in the first year of secondary school the marks obtained the last year of elementary school (for the subjects of Italian, history, geography, math, science, technology, English, art and image, motor science and sport, music, religion and civics) were used as the final marks of the previous school year.

#### 2.2.2. Personality Traits

The Big Five Questionnaire Children (BFQ-C) [30,31] based on FFM was used to evaluate personality.

The BFQ-C is a self-report questionnaire made up of 65 statements regarding common circumstances. The subject is asked to evaluate, on a 5 point Likert scale (ranging from 1= almost never to 5 = almost always), the frequency of occurrence of certain situations in their daily life. The BFQ-C version for subjects from 10 to 14 years was used. The following is the description of the 5 factors with relative example statements: Energy/Extroversion identifies the level of socialization, loquacity, dynamism, activity, assertiveness (example: "I like to move a lot and to do a lot of physical activity"; "I like speaking with others"); Agreeableness identifies the level of altruism, trust, acceptance of others, cooperation (example: "I behave correctly and honestly with others"; "I trust others"); Conscientiousness identifies the level of precision, scrupulousness, accuracy, perseverance (example: "I work hard and with pleasure"; "When I start doing something I have to finish it at all costs"); Emotional Instability identifies the level of mood stability and the ability to control ones own emotional reactions like anger and irritation (example "I sometimes discuss things with others in an irritated way"; "I lose my calm easily"); Intellect/Openness identifies the level of openness to novelty, creativity, originality (Example: "I have great fantasy"; "I like knowing and learning new things").

BFQ-C is a scale with defensible psychometric properties both in terms of reliability and validity [30]. Values of Cronbach's alpha varying from .66 to .85 have been reported. The test-retest reliability coefficients (retesting after 1 year) are significant and vary from .51 to .63. The Italian validation study provides further data supporting its construct validity [31]. In particular, it shows that the correlations among the Big Five and the different criteria considered for validating the BFQ-C were significant and high (e.g. Extraversion, Neuroticism and Psychoticism factors of Junior Personality Questionnaire, problem behaviors measures).

#### 2.2.3. Self-Esteem

For the evaluation of students' self-esteem the Multidimensional Self-Concept Scale (MSCS) [32,33] was used. The MSCS is based on the assumption that self-esteem is a behavioral and cognitive scheme which develops according to the principles of learning. In fact, according to Bracken [32], self-esteem is to be considered a learnt evaluation that individuals calibrate for themselves on the basis of continual environmental feedback, on their

own successes and failures, and on the relationships established with others. The MSCS is based on a hierarchical model of self-esteem, within which it is assumed that self-esteem is the product of several dimensions. These dimensions are connected to the multiple contexts in which the individual finds him/herself and are of approximately equal importance in their contribution to the general construct of self-esteem.

The MSCS is composed by 150 items evaluated on a 4 point Likert scale, ranging from 4 = strongly agree to 1= strongly disagree for items of positive valence (e.g. "I feel confident in myself") and ranging from 1 to 4 for items of negative valence (e.g. "I feel like a failure"). The test is structured over six scales, which coincide with the dimensions retained to constitute self-esteem, plus a total scale. The following is a description of the 6 scales of self-esteem and the total scale: Social, the scale gives information about the perception of self in relation to the significant people in the subject's life (family, teachers, classmates, neighbors etc.), interpersonal, self-confidence is influenced by the behavior of the other people and by the level such relationships occur in a positive manner (e.g.: "I receive a lot of phone calls from my friends"; "I often feel left out"); Competence, the scale indicates to what extent subjects perceive themselves competent in the management of different situations and their chances of functioning effectively in their own environment (e.g.: "I'm successful in almost everything I do"; "I don't seem to have any control of my life"); Affect, the scale gives information about the perception of the capacity of recognizing, evaluating, describing and controlling one's own emotional reactions (e.g.: "I feel loved"; "I'm not as happy as I seem"); Academic, the scale allows comprehension of self-image within the academic context and with respect to the different situations connected to it (e.g.: "I'm proud of my school work"; "I'm not very good at organizing my study"); Family, the scale indicates the perception of self within the family context, taken as the nucleus providing assistance, upbringing and safety (e.g.: "My family is one of the most important things in my life"; "I would like to change my family with that of another person"); Physical, the scale indicates the perception of one's own body and includes comparison with the physical characteristics of others (e.g.: "When I look at myself in the mirror I like what I see"; "I would change my appearance if I could"). Global Self-Concept, the scale derives from the sum of the scores obtained from the specific scales and gives information on the overall assessment which the subjects have of themselves.

The MSCS manual [32] describes the scale as good psychometrics properties both regarding reliability and validity. MSCS subscale internal consistency ranges from .87 to .97, with total scale values superior to .95. The subscale test-retest reliability coefficients range from .73 to .81, with total scale values of .95. Data support its concurrent validity with analogous constructs, with correlation coefficients varying from .73 to .85. Other

studies outlined that the construct measured by MSCS is influenced very little by an individual's demographic characteristics [34] and that the domain-specific subscales of the MSCS are very effective in differentiating the various social status groups [35].

#### 2.2.4. Socio-Economic Status

The evaluation of the socioeconomic status (SES) was made using the Barratt Simplified Measure of Social Status (BSMSS) [36]. This simplified measure derives from the update of the pioneering work of Hollingshead (as cited in Barratt[36]) in devising a simple measure of Social Status based on marital status, current employment status (former status for retirees), level of education and occupational prestige. For students of school age this index attributes parental SES, a combination of educational level and work activity, to the students. The measure obtained varies from 8 to 66.

### 2.3. Procedure

The research carried out followed the phases described below. A meeting was organized with the teaching staff for the presentation of the research tools and for planning the phases and the method to be used. Subsequently the informed consent of the students' parents was obtained. The tests were filled out by students during the school day in the presence of their teacher and two psychologists trained in the test technique. Tests were administered separately for each class. For each class the two questionnaires were completed on different days so as not to tire the students and to limit the effects due to the previous test. The sequence of testing (BFQ-C, MSCS) was alternated class by class. No time limits were given for completion of the test and students could ask for necessary clarifications when in doubt on the meaning of an item or the reply method. The collection of data was carried out in the first half of the academic year 2010/2011 from December to February. In the same period the records of the marks were obtained. The marks were collected from direct consultation of the school reports.

At the end of the testing phase, scoring and analysis of data were carried out.

### 2.4. Statistical Analysis

Comparison of means was made using Student's t-test. The associations between variables were evaluated by the calculation of Pearson's correlation coefficient  $r$ . The reliability of the tools was evaluated by calculation of Cronbach's alpha internal coherence index. Hierarchical multiple linear regression were carried out so as to have a measure of the predictive power of the variables considered on academic achievement. For each regression in the first step the SES were entered into the regression (as a control variable), in the second step 5 BFQ-C factors and in the third step the dimensions of self-esteem. Statistical

significance was chosen at  $p \leq 0.05$ . Effect sizes were calculated by means of Cohen's *d*. All analysis were performed using SPSS (Statistical Package for the Social Sciences) version 21.0 for Macintosh.

### 3. Results

Mean academic achievement (final marks obtained in the previous school year) was 7.24 (SD=1.13), with no significant differences in achievement between males and females ( $t(1,437)=-.714, p=n.s.$ ). The students' SES had an

average of 28.52 (SD=10.39), which may be classified as a mid-level SES.

A comparison with a normative sample of Italian validation study [30], shows that the students' marks evaluated for the 5 measures of personality are near the mean normative results (Table 1). A comparison of means showed that females were more agreeable ( $t(1,437)=-4.411; p<.001, d=0.42$ ) and more conscientious ( $t(1,437)=-2.733; p=.007, d=0.26$ ) than males. Evaluation of the internal coherence of each of the 5 dimensions of the BFQ-C gave values of Cronbach's alpha from 0.712 to 0.776.

**Table 1.** Mean (SD) of personality traits (BFQ-C) and self-esteem (MSCS)

	TOT N=439	Males N=225	Females N=214	t	p	d	alpha
	M (SD)	M (SD)	M (SD)				
BFQ-C E <sup>a</sup>	47.71 (7.0)	47.91 (7.0)	47.5 (7.0)	.608	.544	-	.718
BFQ-C A	46.99 (7.5)	45.48 (7.7)	48.57 (6.8)	-4.411	.000	0.42	.712
BFQ-C C	46.31 (7.5)	45.36 (7.9)	47.31 (7.0)	-2.733	.007	0.26	.753
BFQ-C EI	33.25 (8.3)	32.76 (8.6)	33.76 (7.9)	-1.253	.211	-	.764
BFQ-C I/O	43.22 (8.1)	43.88 (8.5)	44.57 (7.8)	-.876	.382	-	.776
MSCS SO <sup>b</sup>	75.72 (13.2)	76.55 (11.8)	74.85 (14.5)	1.352	.177	-	.875
MSCS CO	74.7 (12.5)	75.17 (11.4)	74.21 (13.5)	.809	.419	-	.833
MSCS AF	74.16 (13.9)	75.55 (12.7)	72.70 (14.9)	2.159	.031	0.20	.887
MSCS AC	73.03 (13.4)	73.50 (12.8)	72.53 (14.0)	.763	.446	-	.890
MSCS FA	86.09 (14.6)	85.67 (14.2)	86.53 (15.0)	-.614	.539	-	.925
MSCS PH	74.09 (13.0)	76.24 (13.1)	71.83 (14.6)	3.341	.001	0.32	.884
MSCS GL	457.03 (74.6)	461.33 (70.6)	452.50 (78.5)	1.239	.216	-	.967

<sup>a</sup>BFQ-C E= Energy/Extraversion; A= Agreeableness; C= Conscientiousness; EI = Emotional Instability; I/O= Intellect/Openness.

<sup>b</sup>MSCS SO= Social; CO= Competence; AF= Affect; AC= Academic; FA= Family; PH=Physical; GL= Global self-concept

Students' scores for the MSCS, were within the average compared to a normative sample data reported in MSCS manual [33] (Table 1). A comparison of the means showed that males, compared to females, had greater values for Affect ( $t(1,437)=2.159; p=.031, d=0.20$ ) and Physical Self-Concept Scales ( $t(1,437)=3.341; p=.001, d=0.32$ ). Evaluation of the internal coherence of each of the scales of the MSCS using Cronbach's alpha test showed that all the scales had a reliability greater than 0.8. Reliability values were optimal (>0.9) for the Family and for Global Self-Concept Scales.

For the whole sample of students the average marks were positively correlated to all factors of the BFQ-C, except Emotional Instability, with all the measures of self-esteem, regardless of SES (Table 2).

From the hierarchical regression analysis using the criterion of the average marks from the previous school year (N=439), it was seen that, after having used SES at the first step, the inclusion of the 5 factors of the BFQ-C brought about an increase of about 16% in the explained variance of the marks. Inclusion of self-esteem led to a further, though modest, increase. Repeating regression analysis using the marks of the first term and the final marks for the current year, confirmed the same predictors and the greater predictive value of the personality traits than the measures of self-esteem. Of the Big Five the factor Intellect/Openness was the most significant predictor. Of the dimensions of self-esteem Academic Self-Concept and Physical Self-Concept were significant predictors of academic success (Table 3).

**Table 2.** Pearson correlation coefficients and partial correlations (controlling for SES) among personality traits (BFQ-C), self-esteem (MSCS) and scholastic achievement

	marks	
	r	pr
BFQ-C E <sup>a</sup>	.126**	.103*
BFQ-C A	.154***	.160**
BFQ-C C	.302***	.308***
BFQ-C EI	-.030	-.011
BFQ-C I/O	.448***	.420***
MSCS SO <sup>b</sup>	.140**	.116*
MSCS CO	.242***	.202***
MSCS AF	.199***	.179***
MSCS AC	.372***	.344***
MSCS FA	.128**	.129**
MSCS PH	.114*	.111*
MSCS GL	.220***	.202***
SES	.302***	

\* p&lt;.05 \*\* p&lt;.01 \*\*\*p&lt;.001

<sup>a</sup> BFQ-C E= Energy/Extraversion; A= Agreeableness; C= Conscientiousness; EI = Emotional Instability; I/O= Intellect/Openness;<sup>b</sup> MSCS SO= Social; CO= Competence; AF= Affect; AC= Academic; FA= Family; PH=Physical; GL= Global self-concept**Table 3.** Personality traits (BFQ-C) and self-esteem (MSCS) as predictor of academic marks

Predictor	Final marks previous school year		Marks of the end of the first term		Marks of the end of current year	
	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$
Step 1 control variable(SES)	.089***	.302***	.211***	.462***	.303***	.553***
Step 2 BFQ-C E <sup>a</sup> BFQ-C A BFQ-C C BFQ-C EI BFQ-C I/O	.161***	-.013 -.044 -.100 .028 .242***	.142***	-.006 -.004 -.018 .091 .418***	.093***	-.032 .004 -.075 .110* .371***
Step 3 MSCS SO <sup>b</sup> MSCS CO MSCS AF MSCS AC MSCS FA MSCS PH MSCS GL	.037***	-.054 -.184 .038 .381*** -.129 -.200* .253	.047***	.047*** .061 .067 -.121 .250** .027 -.239*** .073	.036***	.075 .039 -.154 .222** .023 -.185* .120
Total R <sup>2</sup> n	.287 439		.400 254		.432 254	

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

<sup>a</sup> BFQ-C E= Energy/Extraversion; A= Agreeableness; C= Conscientiousness; EI = Emotional Instability; I/O= Intellect/Openness;<sup>b</sup> MSCS SO= Social; CO= Competence; AF= Affect; AC= Academic; FA= Family; PH=Physical; GL= Global self-concept

Separate regression analyses for males and females found that the same significant predictors that emerged in the whole sample, even if the self-esteem dimensions appeared to be even less predictive for academic achievement (Table 4).

**Table 4.** Personality traits, self-esteem and SES as predictor of academic marks in males and females

Predictor	Males		Females	
	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$
Step 1 control variable(SES)	.078***	.287***	.115**	.345***
Step 2 BFQ-C E <sup>a</sup> BFQ-C A BFQ-C C BFQ-C EI BFQ-C I/O	.196***	-.097 -.043 .130 .061 .419***	.116***	.053 -.011 .043 -.059 .366***
Step 3 MSCS SO <sup>b</sup> MSCS CO MSCS AF MSCS AC MSCS FA MSCS PH MSCS GL	.018***	-.056 -.022 -.018 .275* -.146 -.160 .220	.045***	-.006 -.356 .237 .652 .011 -.156 -.203
Total R <sup>2</sup> n	.292 439		.276 439	

<sup>a</sup> BFQ-C E= Energy/Extraversion; A= Agreeableness; C= Conscientiousness; EI = Emotional Instability; I/O= Intellect/Openness;

<sup>b</sup> MSCS SO= Social; CO= Competence; AF= Affect; AC= Academic; FA= Family; PH=Physical; GL= Global self-concept

#### 4. Discussions

This study aimed at exploring the relationship between the big five factors, self-esteem and academic success so as the contribution to the substantial literature which attempts to throw light on the factors at the base of student performance. From the literature available to us, this is the first study which has analyzed the predictive value on school marks of the big five and of self-esteem together. We are aware of having examined a limited number of possible predictor variables for academic achievement and that it is necessary to amplify the study to examining other aspects.

The sample investigated showed good levels of academic achievement in both genders and had personality characteristics and general levels of self-esteem and for the specific dimensions of MSCS within the recognized norms. In agreement with the empirical evidence present in the literature, a gender difference was seen for the traits of Conscientiousness and Agreeableness in which the females obtained higher points than their male counterparts by age [30,37,38]. Males had higher self-esteem values for the ability of recognizing, evaluating, describing and controlling their own emotional reactions (Affect) and in the perception of their own body image (Physical). Other studies describe males, in comparison to females, as having higher levels of general self-esteem and also for certain specific dimensions of self-esteem [9,39-41].

In the analysis of the academic achievement the correlations coefficients suggested a positive significant association between the marks obtained and traits of personality and self-esteem, even when the SES parameter is controlled. The personality traits were seen to be significant predictors of academic achievement, when

considered for the final marks of the previous school year. Moreover, their predictive value was confirmed in the analyses carried out for the marks during the current school year and for the marks at the end of the current school year. Intellect/Openness was a significant predictor in all three measures of academic achievement in the whole sample and for both sexes.

When the scores for self-esteem were added into the model the amount of explained variance increased, albeit to a modest degree. The model indicates that the Academic and Physical dimensions of self-esteem are significant predictors of academic achievement.

Our results indicate the association between the Big Five Factors and scholastic mark, showing, in particular, the role of Intellect/Openness in predicting academic achievement. These results are in line with current literature which describes Intellect/Openness as having a positive association with academic success, regardless of the effects due to intelligence and to the effort made by the student [20], and as important predictor of academic achievement [42], especially considering the aspect of Intellect/Openness associated to the proactive component of Conscientiousness [31]. We suppose, in line with Farsides and Woodfield[20], that the relevance of this FFM personality factor in academic achievement is explained because openness to experience facilitates the use of effective learning strategies like critical evaluation and in-depth analysis of contents. It may be hypothesized, moreover, that openness to experience has a positive association with marks, in that the predisposition to novelty may reduce the difficulties a student may find in approaching new subjects and new topics during his/her time at school. In the same way, the predisposition towards creativity and towards originality of thought may favor curiosity and an interest in stimuli and

content proposed by teachers.

At the same time, the low predictive value of self-esteem once again shows the lack of clarity regarding the link between self-esteem and academic success. The predictive value of Academic and Physical Self-Concepts on academic achievement appears in agreement with the results of the contributions which show that specific dimensions of self-esteem are more strongly associated with academic achievement than measures which evaluate other, more global, aspects of self-esteem [39, 43-46]. We may wish to hypothesize that a positive/good representation of the self facilitates and supports a positive and secure approach to academic requirements, increasing the chance of positive evaluation. However, it is still by no means clear whether self-esteem facilitates academic success or vice versa [28].

The relationship between personality traits and academic achievement supports the necessity of continuing investigation into this parameter so as to obtain a better understanding of the base factors involved in the same. The role of the personality and of other variables associated with academic performance suggested by our findings, may and must have, from our point of view, concrete implications. In the first place, the evaluation of personality traits, as also suggested by Poropat[1], should be considered in the definition of criteria, other than intelligence tests alone, for the selection of students who access certain academic levels; in the second place measures based on FFM should be used to recognize the students at risk of academic underachievement: the possibility of predicting academic success through personality measures reflects the possibility of having further useful elements for identifying which students are at greater risk of academic failure.

We believe that the factors responsible for academic achievement may contribute to improving the prediction of future successes and failures in this field. Considering academic achievement as a protection factor with respect to academic disengagement and, consequently, retaining the lack of academic achievement as a precondition or a risk factor for underachievement, our data may provide a contribution for planning intervention aimed at addressing negative consequences arising in the student-school relationship. On the basis of the data in the present study, it may be hypothesized, in particular, that a student characterized by low originality of thought, low openness to new ideas, low propensity towards novelty, low socioeconomic level and a low self-esteem as a student but with a good self-esteem for body perception, is potentially at risk of low academic achievement or academic failure. In this sense, one may hypothesize that a student with such characteristics could benefit from an intervention which seeks to reinforce these areas, or the teaching method itself could be modulated or adapted to the specific personality of the student, so as to support the process of learning. Understanding the relationship between characteristics of personality and academic success may, in fact, have repercussions on the teaching styles. As suggested by Farsides and Woodfield[20] students with high openness to

experience could benefit from educational contexts which promote and reward critical and original thought, while students with low levels of openness to experience, but with good intelligence and motivation, should do better in educational contexts which promote and reward the acquisition of generally accepted knowledge which does not require a specific predisposition towards learning in a creative or innovative way.

To support academic achievement as a preventive action against scholastic disengagement, planning and intervention able to consider the actions of several variables at the same time is indispensable, as well as being useful for identifying those students at risk of academic failure and to allow them to be the target group of programmes for assistance and support in the academic setting.

## Acknowledgements

The Authors offer sincere thanks to Dr. Annalisa Manduano and Dr. Antonia Esposito for their helping in the subjects recruitment and assessment.

---

## REFERENCES

- [1] A. E. Poropat. A meta-analysis of the five-factor model of personality and academic performance, *Psychological Bulletin*, Vol.135, No.2, 322-338, 2009. doi: 10.1037/a0014996
- [2] T. E. Rohde, L. A. Thompson. Predicting academic achievement with cognitive ability, *Intelligence*, Vol.35, No.1, 83-92, 2007. doi: 10.1016/j.intell.2006.05.004
- [3] K. H. Chee, N. W. Pino, W. L. Smith. Gender differences in the academic ethic and academic achievement, *College Students Journal*, Vol.39, No.3, 604-618, 2005.
- [4] M. Sheard. Hardiness commitment, gender, and age differentiate university academic performance, *British Journal of Educational Psychology*, Vol.79, No.1, 189-204, 2009. doi: 10.1348/000709908X304406
- [5] M. Richardson, C. Abraham. Conscientiousness and achievement motivation predict performance, *European Journal of Personality*, Vol.23, No.7, 589-605, 2009. doi: 10.1002/per.732
- [6] S. B. Robbins, K. Lauver, H. Le, D. Davis, R. Langley, A. Carlstrom. Do psychosocial and study skill factors predict college outcomes? A meta-analysis, *Psychological Bulletin*, Vol.130, No.2, 261-288, 2004. doi: 10.1037/0033-2909.130.2.261
- [7] D. H. Caro, J. T. McDonald, J. D. Willms. Socio-economic status and academic achievement trajectories from childhood to adolescence, *Canadian Journal of education*, Vol.32, No.3, 558-590, 2009.
- [8] S. R. Sirin. Socioeconomic status and academic achievement: a meta-analytic review of research, *Review of Educational Research*, Vol.75, No.3, 417-453, 2005. doi:

10.3102/00346543075003417

- [9] M. A. Rogers, J. Theule, B. A. Ryan, G. R. Adams, L. Keating. Parental involvement and children's school achievement: evidence for mediating processes, *Canadian Journal of School Psychology*, Vol.24, No.1, 34-57, 2009. doi: 10.1177/0829573508328445
- [10] Y. Shin, Y., S. Raudenbush. The causal effect of class size on academic achievement: multivariate instrumental variable estimators with data missing at random, *Journal of Educational and Behavioral Statistics*, Vol.36, No.2, 154-185, 2011. doi: 10.3102/1076998610388632
- [11] G. Caprara, A. Gennaro. *Psicologia della personalità*, Il Mulino, Bologna, 1999.
- [12] T. Chamorro-Premuzic, A. Furnham. Personality predicts academic performance. Evidence from two longitudinal university samples, *Journal of Research in Personality*, Vol.37, No.4, 319-338, 2003. doi:10.1016/S0092-6566(02)00578-0
- [13] K. Laidra, H. Pullmann, J. Allik. Personality and intelligence as predictors of academic achievement: a cross-sectional study from elementary to secondary school, *Personality and Individual Differences*, Vol.42, No.3, 441-451, 2007. doi: 10.1016/j.paid.2006.08.001
- [14] H. Rindermann, A. C. Neubauer. The influence of personality on three aspects of cognitive performance: processing speed, intelligence and school performance, *Personality and Individual Differences*, Vol.30, No.5, 829-842, 2001. doi: 10.1016/j.paid.2005.01.028
- [15] M. M. Sanchez, E. I. Rejano, Y. T. Rodriguez. Personality and academic productivity in the university student, *Social Behavior and Personality*, Vol.29, No.3, 299-305, 2001. doi: 10.2224/sbp.2001.29.3.299
- [16] K. V. Petrides, T. Chamorro-Premuzic, N. Frederickson, A. Furnham. Explaining individual differences in scholastic behaviour and achievement, *British Journal of Educational Psychology*, Vol.75, No.2, 239-255, 2005. doi: 10.1348/000709904X24735
- [17] A. Aluja-Fabregat, R. Torrubia-Beltri. Viewing of mass media violence, perception of violence, personality and academic achievement, *Personality and Individual Differences*, Vol.25, No.5, 973-989, 1998. doi: 10.1016/S0191-8869(98)00122-6
- [18] M. Maqsd. Relationship of some personality variables to academic attainment of secondary school pupils, *Educational Psychology*, Vol.13, No.1, 11-18, 1993. doi: 10.1080/0144341930130102
- [19] K. W. Bauer, Q. Liang. The effect of personality and precollege characteristics on first-year activities and academic performance, *Journal of College Student Development*, Vol.44, No.3, 277-290, 2003. doi: 10.1353/csd.2003.0023
- [20] T. Farsides, R. Woodfield. Individual differences and undergraduate academic success: the role of personality, intelligence and application, *Personality and Individual Differences*, Vol.34, No.7, 1225-1243, 2003. doi: 10.1016/S0191-8869(02)00111-3
- [21] E. K. Gray, D. Watson. General and specific traits of personality and their relation to sleep and academic performance, *Journal of Personality*, Vol.70, No.2, 177-206, 2002. doi: 10.1111/1467-6494.05002
- [22] P. Phillips, C. Abraham, R. Bond. Personality, cognition and university students' examination performance, *European Journal of Personality*, Vol.17, No.6, 435-448, 2003. doi: 10.1002/per.488
- [23] M. C. O'Connor, S. V. Paunonen. Big Five personality predictors of post-secondary academic performance, *Personality and Individual Differences*, Vol.43, No.5, 971-990, 2007. doi: 10.1016/j.paid.2007.03.017
- [24] M. Bruck, F. Bodwin. The relationship between self concept and the presence and absence of scholastic underachievement, *Journal of Clinical Psychology*, Vol.18, No.2, 181-182, 1962. doi: 10.1002/1097-4679(196204)18:2<181::AID-JCLP2270180224>3.0.CO;2-A
- [25] L. Keltikangas-Jarvinen. Self-esteem as predictor of future school achievement, *European Journal of Psychology of Education*, Vol.7, No.2, 123-130, 1992. doi: 10.1007/BF03172889
- [26] A. Pepi, L. Faria, M. Alesi. Personal conceptions of intelligence, self-esteem, and school achievement in Italian and Portuguese students, *Adolescence*, Vol.41, No.164, 615-631, 2006.
- [27] N. R. Whitesell, C. M. Mitchell, P. Spicer. The Voice of Indian Teens Project Team. A longitudinal study of self-esteem, cultural identity, and academic success among American Indian adolescents, *Cultural Diversity and Ethnic Minority Psychology*, Vol.15, No.1, 38-50, 2009. doi: 10.1037/a0013456
- [28] R. F. Baumeister, J. D. Campbell, J. I. Krueger, K. D. Vohs. Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, Vol.4, No.1, 1-44, 2003. doi:10.1111/1529-1006.01431
- [29] D. L. Miller, T. Moran. Positive self-worth is not enough: some implications of two-dimensional model of self-esteem for primary teaching, *Improving School*, Vol.9, No.1, 7-16, 2006. doi: 10.1177/1365480206061988
- [30] C. Barbaranelli, G. V. Caprara, A. Rabasca. BFQ-C. Big Five Questionnaire Children, *Organizzazioni Speciali*, Firenze, 1998.
- [31] C. Barbaranelli, G. V. Caprara, A. Rabasca, C. Pastorelli. A questionnaire for measuring the Big Five in late childhood, *Personality and Individual Differences*, Vol.34, No.4, 645-664, 2003. doi: 10.1016/S0191-8869(02)00051-X
- [32] B. A. Bracken. MSCS. Multidimensional Self-Concept Scale, PRO-ED, Texas, 1992.
- [33] B. A. Bracken. Test TMA. Valutazione multidimensionale dell'autostima, Ed. Erickson, Trento, 1993.
- [34] R. M. Crain, B. A. Bracken. Age, race, and gender differences in child and adolescent self-concept: Evidence from a behavioral-acquisition, context-dependent model, *School Psychology Review*, Vol. 23, No.3, 496-511, 1994.
- [35] L. D. Jackson, B. A. Bracken. Relationship between students' social status and global and domain-specific self-concepts, *Journal of School Psychology*, Vol.36, No.2, 233-246, 1998.

doi: 10.1016/S0022-4405(97)00052-6

- [36] W. Barratt. The Barratt Simplified Measure of Social Status (BSMSS) measuring SES. Unpublished manuscript, Indiana State University, 2006. Online available from [http://wbarratt.indstate.edu/socialclass/Barratt\\_Simplified\\_M easure\\_of\\_Social\\_Status.pdf](http://wbarratt.indstate.edu/socialclass/Barratt_Simplified_M easure_of_Social_Status.pdf)
- [37] P. T. Costa, A. Terracciano, R. R. McCrae. Gender differences in personality traits across cultures: robust and surprising findings, *Journal of Personality and Social Psychology*, Vol.81, No.2, 322-331, 2001. doi: 10.1037/0022-3514.81.2.322
- [38] D. P. Schmitt, A. Realo, M. Voracek, J. Allik. Why can't a man be more like a woman? Sex differences in big five personality traits across 55 cultures, *Journal of Personality and Social Psychology*, Vol.94, No.1, 168-182, 2008. doi: 10.1037/0022-3514.94.1.168
- [39] A. D'Amico, M. Cardaci. Relations among perceived self-efficacy, self-esteem, and school achievement, *Psychological Reports*, Vol.92, No.3, 745-754, 2003. doi: 10.2466/PR0.92.3.745-754
- [40] M. Forzi, E. Not. Factors of self-esteem as regards age and gender. *Bollettino di Psicologia Applicata*, Vol.241, 27-36, 2003.
- [41] S. Joshi, R. Srivastava. Self-esteem and academic achievement of adolescents, *Journal of the Indian Academy of Applied Psychology*, Vol.35, Special Issue, 33-39, 2009. doi: 10.1080/01443410120101242
- [42] T. Chamorro-Premuzic. Creativity versus conscientiousness: which is a better predictor of student performance? *Applied Cognitive Psychology*, Vol.20, No.4, 521-531, 2006. doi: 10.1002/acp.1196
- [43] M. A. Mone. Predictive validity and time dependency of self-efficacy, self esteem, personal goals, and academic performance, *Educational and Psychological Measurement*, Vol.55, No.5, 716-727, 1995. doi: 10.1177/0013164495055005002
- [44] F. Pajares, M. D. Miller. Role of self-efficacy and self-concept beliefs in mathematical problem solving: a path analysis, *Journal of Educational Psychology*, Vol.86, No.2, 193-203, 1994. doi: 10.1037/0022-0663.86.2.193
- [45] J. C. Valentine, D. L. DuBois, H. Cooper, H. The relation between self-beliefs and academic achievement: a meta-analytic review, *Educational Psychologist*, Vol.39, No.2, 111-133, 2004. doi: 10.1207/s15326985ep3902\_3
- [46] P. Vermigli, G. Travaglia, S. Alcini, M. Galluccio, M. Autostima, relazioni familiari e successo scolastico, *Età Evolutiva*, Vol.71, No.1, 29-42, 2001.