

Correlates of Academic Performance of Adolescents: Perspectives of Personality Characteristics

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Abstract: *The academic performance of students from socially disadvantaged communities has been the prime concern of scholars from the disciplines of Education, Psychology and Psychiatry over the past three decades. The efforts to remedy this have, however, not yielded any sustainable results. Generally, when the academic performance is poor, the school resources and support systems are blamed. It was observed in one such population, that the academic achievement of students in some schools remained high while that of others in the same locality remained low despite the provision of same support services. Further, the researcher's experiences suggested that the disadvantaged schools whose students continuously performed well were guided by effective environment at schools in terms of promoting all round development rather than emphasizing only on academic pursuits. The purpose of this research therefore, was to identify the role of personality make-up on academic performance, skills and attitudes employed by teachers and parents of disadvantaged children. In the present study, an attempt has been made to analyze the impact of personality characteristics on academic pursuits, mediated by environmental pressures and process of coping mechanisms adopted by children studying in public school systems. The case study method was applied on 5 children studying in high school. They were administered the High School Personality Questionnaire originally created by Cattell, followed by in-depth analysis of parenting style, affective structure of family and process of coping mechanism evolved by the children for the attribution of under achievement. The results have been conceptualized into cognizable factors that are contributing to their personality adversely and in turn affecting their academic performance. The results also suggest that on the one hand the academic achievement is correlated with personality factors; on the other hand, the environmental stress perceived by students influenced directly, their academic achievement and their personality attributes.*

Keywords: *Academic achievement, Environmental Influence, Family processes, Personality attributes, Social support*

I. Introduction

The premise for this paper comes from the disturbing trend of declining academic performance in high school students. Even those students who have sound academic potential and who have every resource available to help them excel in the school examinations, seem to be unable to do. Hence, it appears that there are other factors such as influence of peer and family, personality of the students, attitude of school authorities, etc., that seem to affect the child's academic performance. This paper presents the earlier studies that support this assumption and then, goes on to describe the family history, personality profiles and the secondary diagnosis of the 5 cases assessed and interviewed in detail. Finally, a counselling model has been proposed as an outcome of the study.

II. Review of Literature

2.1 Influence of Personality traits on Academic performance and achievement motivation:

Personality traits, combined with cognitive abilities and aptitude have been known to effect academic achievement; also much research has been conducted to understand the significance of other related factors like self-esteem, self-concept, self-efficacy and positive attitude on students' academic performance. The Five-Factor Model popularly used in the form of the Big Five Personality Test, has been used in several different studies to understand the effect of personality traits on academic performance, motivation and achievement. Laidraet. al. (2007) have shown that though academic achievement relies on the same mechanisms throughout all school years, conscientiousness is a strong predictor of GPA in adolescents. Poropat (2009) shows in a meta-analytical study, that Academic performance correlates significantly with Agreeableness, Conscientiousness and Openness. In fact conscientiousness was a strong predictor of academic performance in college. Studies have shown that this personality factor is also responsible for increased intrinsic motivation, which in turn helps students to perform better (Komarraju, et. al., 2009). Strong evidence is present to demonstrate that self-esteem,

a component of self- concept, has no effect of academic performance, but studies also show that, academic self- concept, not general self- concept, has a reciprocal effect with achievement, in that they are mutually reinforcing (Marsh and O'Mara, 2008; Marsh & Martin, 2011).

Academic self- efficacy combined with Openness contributes to good high- school grades which in turn support continued achievement in later academic pursuits. Although personality traits are mostly derived from genetic endowment, combined with social and cognitive factors, they go a long way in supporting the learning activities of students (Capara, et. al., 2010). Positive thinking, hope and self-esteem (to a lesser extent) have a definite role in predicting academic performance in youth, as suggested by the longitudinal study conducted by Leeson et.al. (2008). Although most admission tests measure aptitude and use it as an indicator of future academic achievements, there is enough evidence to show that personality measures are promising predictors of academic outcomes (Conrad, 2006).

2.2 Family and Parental Influence on Academic Achievement:

Positive involvement of parents in the academic and co-scholastic activities of their children has always been known to support their achievement. Parenting style, parent- child discussions, education levels of the parents and family cohesion are some of the factors studied to understand the effect on achievement. Irrespective of race, parental involvement has significant effects on the achievement of students (Jeynes, 2007). According to Fajoju, et. al., (2016) and Stewart (2008), the higher the parental involvement the higher the achievement of students, particularly in the core subject of Mathematics, Science and English. A study by Stewart (2007) shows that parent- child discussion along with student's effort, associations with positive peers and school climate- in terms of school cohesion felt by students, teachers and administrators- all play a very significant role in the success of students. Authoritative parenting styles continue to influence the academic performance in older adolescents (Turner, et.al, 2009). A meta- analytical study by Hill and Tyson (2009) examines 50 studies to conclude that students' achievement is significantly influenced by positive parental involvement. In a study of family cohesion and parental monitoring, it was seen to predict school engagement but neither predicted GPA (Annunziata, et.al,2006). Parents who provided cognitive stimulation saw their students achieve more success in mathematics and reading (Eamon, 2005).

2.3 Socio- economic Factors and Academic Achievement:

An important factor that has been known to influence academic achievement of children and adolescents is their socio-economic status. While there is much literature to show that students who come from higher socio-economic families have more access to better infrastructure and resources and hence better chances of achieving higher academic goals, there is enough evidence to show that even the poorest of poor students, with bare minimal resources have met with great academic success. In a study of the role played by the socio-economic status and parental involvement in the academic pursuits of Chinese adolescents, among other results, it was found that parental involvement is lower in economically disadvantaged families (Wang, et.al., 2016). Educated mothers from families that were financially more stable were seen to be more involved in their children's education. Socio-economic status and the education levels of parents have a significant effect on the academic success of their children, according to a study by Farooq, et.al. (2011), particularly in Mathematics and English. The higher the economic status the better the students' performance. In another study by Malecki, et.al. (2006) on students who received free or reduced- cost resources, showed that there was moderate association between social support and academic scores. Barry (2006), found that the socioeconomic status is a strong predictor of test scores. Another study by Sackett, et. al. (2009) showed that the socio-economic status has no substantial influence on test scores or grades.

III. Objective

The aim of the study described in this paper is to understand how the academic achievement of high school students is affected by the afore-mentioned factors, i.e., personality traits, parental and family dynamics, socio-economic and socio- cultural elements (which include peers, school mates and teachers/ administrators).

IV. Methodology

The Case Study method has been applied on five high school students between the ages of 13 and 14 years.

- 1.1 Their parents were interviewed in detail to get as much information as possible regarding the adolescent's childhood- physical, mental, emotional and developmental histories. The parents also gave information regarding their ward's current academic performance, emotional and behavioural status and their social interactions.

- 1.2 High School Personality Questionnaire (HSPQ) was administered to the students to understand the personality traits that are in play. Both primary scores and secondary personality factors have been taken into account for the study.
- 1.3 Students' Academic achievement was studied using their scholastic performance scores of the previous 3 formative and summative assessments; detailed discussions with their teachers also gave information regarding their performance in classroom and in co- scholastic activities.

V. Details of Case Studies

5.1 Case # 1:

5.1.1 general Profile

Appearance: The student has a mesomorphic build and is relatively short for his age. He appears to be neat and well dressed, has no obvious body odour. He has a "guarded" neutral expression while speaking and answers in monosyllables as much as possible.

General Health: He has good health, however, he has suffered from moderate wheezing during his childhood (2- 11 years), but has not had any bouts during the past 3 years.

Academic Performance: In accordance with academic assessments, the student's performance was found to be well below the expectations of parents and teachers. His notes and homework are completed satisfactorily. He doesn't voluntarily ask any questions in class and answers/ participates only when drawn out. He is good at sports, but due to poor academic performance, is not being allowed to spend much time on it.

5.1.2 personality Profile:

On the HSPQ, the student shows below average intelligence, is very shy and is quite relaxed. He is a quite impatient, but emotionally stable and calm, resourceful and self- sufficient most of the time, but is sensitive and sometimes dependent on others. The second order profile shows that he is introverted and mildly anxious. But has average scores on neuroticism.

5.1.3 family History:

The student and his mother were abandoned by the father when he was 2 years old. Since then, the mother and son have been living in the home of the student's older aunt and uncle. The aunt and uncle are very loving and provide every need and want of the boy and his mother, explicit and implicit. Since the uncle is financially very well- off, the boy is indulged and provided with every material luxury and opportunity. The student has one younger cousin brother (11years) and an older cousin sister (18 years). The uncle runs his own business and is the only earning member of the family.

5.1.4 diagnosis:

Low academic performance with adequate cognitive skills

5.1.5 Differential Diagnosis:

The family environment lacks stimulation processes and less concerned towards child's growth and development. It has happened on two counts- 1. The mother of the child has been deserted by the father and 2.They are compelled to be dependent on their aunt's family. There is an evidence of cognitive dissonance towards the future of the child.

5.1.6 Risk Points:

- The mother is financially and emotionally dependent on the sister;
- There is some perceived discrimination between the cousin brothers;
- The student is expected to give in to the wishes of the younger brother, however unreasonable they maybe;
- The boy is learnt to simply stay quiet and not express any emotion, to the extent that he doesn't even respond to adults in any socially acceptable way.
- He does not respond in class even though he has understood the content being taught.

5.2 Case # 2:

5.2.1 General Profile

Appearance: The child is tall, has an endomorphic build and is slightly overweight. He is relatively neatly dressed and has no body odour. However, he walks with a hunch, appears lethargic and prefers to sit around rather than run about with his friends. He also replies slowly, seems distracted and inattentive and sleepy in class. But in general he appears to be happy with his schoolmates.

General Health: The boy has a good appetite and is keeping good health. No history of any major illness or traumatic occurrences.

Academic Performance: The student manages to finish his notes and homework satisfactorily, but needs some motivation and support to finish projects. He is uninterested and distracted in class, doesn't interact much in class and has very poor grades.

5.2.2 Personality Profile:

On the HSPQ, the student shows below average intelligence, is happy but tense, sensitive but also self-sufficient and spontaneous. He is emotional and over-protected but evades rules and doesn't always conform to rules, but is not openly defiant.

5.2.3 Family History:

The family consists of 4 members- the parents, who have migrated from the rural areas of North India, and an older brother. Both children have grown up in urban Bangalore. The mother has undergone major surgery when the child was about 10 years old, so the child was separated from his mother for about a year. He has developed a strong attachment to her and worries about her all the time. Otherwise all four members share a close relationship and the elder brother looks after the younger sibling in the absence of the parents.

5.2.4 Diagnosis:

Low academic performance due to Low IQ, combined with lack of emotional maturity and poor social skills.

5.2.5 Differential Diagnosis:

The family is close knit and supportive, but there is definite dissonance in the parents' traditional values and the values that the child is exposed to in the school environment and peer interaction. The child, due to separation from mother, has developed anxiety and insecurity, because of which he remains emotionally unstable. He is unable to cope with the demands of school and hence, has developed indifference towards his academic pursuits.

5.2.6 Risk Points:

- The child has poor coping skills and avoids any stressful situation.
- Parents are not able to understand the needs of the child due to difference in culture
- Child is still insecure about mother's life, even after many years of recovery
- Child's social and emotional immaturity are contributing to his poor academic performance

5.3 Case # 3:

5.3.1 General Profile

Appearance: With a mesomorphic build and normal height and weight, the child seems to be happy and enthusiastic in all her scholastic and co-scholastic activities. She is friendly and gets along well with all her classmates, she participates in all classroom discussions and appears to be interested in studies.

General Health: She keeps good health and has a hearty appetite, according to the mother. She is energetic and has no significant medical or health concerns.

Academic Performance: For someone who actively participates in class, appears to understand the lessons being taught and does all her work in time, the student seems to be under-performing in the tests and exams. The teachers believe that she has the potential to score much higher marks than she is currently getting.

5.3.2 Personality Profile:

According to the HSPQ profile, the child has average intelligence, is emotionally stable, self-reliant and resourceful. While she conforms to social norms and self-disciplined, she is also excitable and apprehensive. This is established by the secondary factors which show that she is prone to high anxiety levels and tends to become introverted at times, but there is no neuroticism.

5.3.3 Family History:

The child comes from a traditional family, which is largely patriarchal. The mother is friendly and understands the needs of her daughter, who is exposed to urban life and culture, but the father is authoritarian about the child's behaviour, choice of dressing, interaction with friends, etc. The mother acts as a mediator during times of conflict. Nothing very eventful or traumatic has occurred in the family to cause any disturbance to the child's emotional or psychological development.

5.3.4 Diagnosis:

Poor academic performance due to inadequate and incorrect family interactions; strong cognitive and language development do not compensate for the lack of social and emotional maturity.

5.3.5 Differential Diagnosis:

There is marked dissonance in the way in which each parent interacts with the child, so the child is anxious when she has to interact with the father or with anyone in a position of authority. The child also has poor social skills and becomes stressed during conflicts with peers. Her constant need to belong to the peer group compounds the anxiety leading to poor academic performance.

5.3.6 Risk Points:

- Interaction with family is not completely transparent
- Both mother and child need to improve interactions with the father
- Child's self-confidence needs to be built up
- Emotional immaturity can lead to more anxiety and in turn affect academic performance

5.4 Case # 4

5.4.1 General Profile

Appearance: The child is Ectomorphic, tall and stoops while standing. She is quiet and speaks softly only to her close friends or when spoken to. She appears to be apprehensive to voice her opinion and looks neither sad nor happy. But she participates in class when drawn out and seems comfortable in school.

General Health: The child is in good health and has no significant illness. Appetite is good and is physically active.

Academic Performance: The teachers and parents both feel that she has a lot of knowledge about a wide variety of subjects, but seems to be under-performing in academic tests. She is able to answer questions asked during class, but only when specifically drawn out, never voluntarily. When put under pressure or offered an award, then her performance increases.

5.4.2 Personality Profile:

The HSPQ test profile shows that the child has low average scholastic capacity, is socially and internally restrained; but seems to be highly excitable and tends to be impulsive and assertive of her wishes. She is sufficiently resourceful, conscientious and is able to face reality despite being temperamental.

5.4.3 Family History:

The child has grown up in a joint family of middle socio-economic status. The parents are traditional and religious, while being open-minded in the child's upbringing. The child is more communicative with the father than the mother and the latter is the disciplinarian. But in general, she is loved and slightly pampered by all family members and is close with her cousin brother too.

5.4.4 Diagnosis:

The child is unable to get the grades despite adequate potential, i.e., good cognitive and language skills; due to lack of emotional maturity, she tends to be impulsive and is sometimes unable to decide on appropriate course of action.

5.4.5 Differential Diagnosis:

The child is exposed to the dynamics of a joint family and the hierarchy among the male members of the family. She prefers to converse with her father privately where she feels it is safe for both of them rather than openly and freely before her grandparents. Cultural expectations of family and the demands of peer relationships have created conflict with the child and lead to impatient and impulsive reactions from her; this adds to her indecisiveness. Even though she is realistic when calm, her excitability and emotional immaturity interferes in her thinking. All these have a cumulative effect on her academic/ classroom performance.

5.4.6 Risk Points:

- The student's self-confidence needs to be built- both teachers and parents must encourage her to participate more actively in academic activities
- Social skills need to be improved for better functioning in peer group
- Both parents have to spend quality time with child and strike a balance between the family's values and the outside world.

5.5 Case # 5

5.5.1 General Profile

Appearance: With an over- weight, endomorphic body type, this child appears listless and inactive. He prefers to sit in a corner where he cannot be spotted by the teacher easily. He is distracted and is usually doodling during class. He doesn't respond to teacher and appears to not comprehend when spoken to. But the child doesn't seem unhappy or in distress. He talks and plays with his friends and does all other age appropriate activities.

General Health: According to the parents, the child has no significant history of illness. His appetite is high for his age and he has unhealthy eating habits; this keeps him over- weight and lethargic.

Academic Performance: The child performs significantly below expectations and is unable to make passing grades in most subjects involving logical thinking. He has good creative skills and is very interested in drawing/ painting based projects. But he is unable to contribute to the academic parts of the project.

5.5.2 Personality Profile:

According to the HSPQ, the child has poor scholastic mental abilities. But he is self- sufficient and self- assured, but becomes tense in situations where the attention is on him. Otherwise, there are no significant deviations from the average personality.

5.5.3 Family History:

The father works for himself and is hence able to adjust his work- timings to be able to spend enough time with his children. The child is close to his father and has a friendly relationship with the brother and mother. The parents seem to have very little expectation from the child in terms of his academic or co- scholastic pursuits and do not pressurize the child in any way. They also believe in satisfying every material desire of the child irrespective of the need for it. The family is nuclear and there doesn't seem to be much influence of extended family or friends.

5.5.4 Diagnosis:

The child's performance is very poor in academics and is the main cause for concern. He is distracted and inattentive in class. His exam papers show that he is unable to comprehend his lessons and is hence not able to answer correctly. He is also very slow in writing or saying what he wants to, so is unable to complete his work in time.

5.5.5 Differential Diagnosis:

Despite closeness with family members, the quality of conversations and stimulation seems to be poor; this has resulted in a severe lack of emotional maturity and language development (this fact is supported by mother's report that the child's speech and other milestones were significantly delayed). The child's cognitive and social development are also well- below the age- norms. There seems to be some pathology in the family interactions and this will need further exploration for counselling purposes.

5.5.6 Risk Points:

- The child is slow in uptake of information and gets overwhelmed by the academic pressures
- Inattention and hence distraction add to his inability to keep up with classroom requirements
- Poor quality of interactions with parents has led to poor stimulation and motivation
- Child's eating habits can lead to obesity and other health complications
- Underdeveloped cognitive abilities and emotional immaturity can create more pressure with increasing academic demands of high school

VI. Conclusion

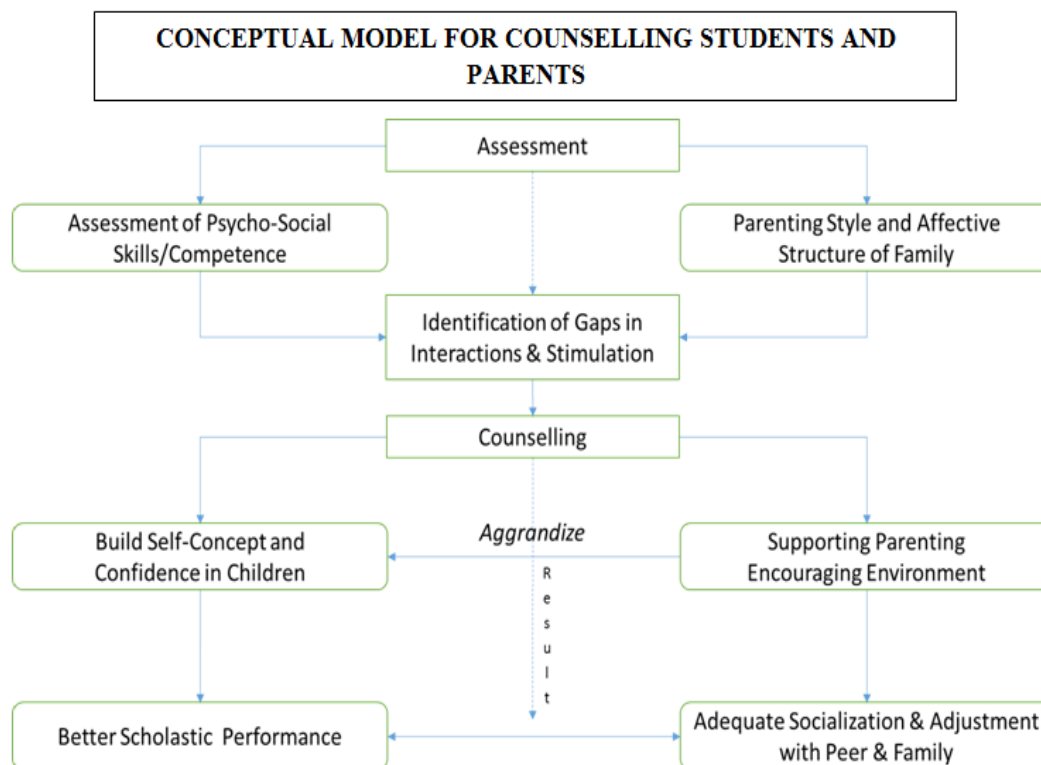
- 6.1 **The students are performing poorly in academics:** the students appear to have adequate cognitive ability to do better in their exams, than they are doing currently. Despite fairly well- developed language and mathe-logical skills, they are unable to translate their learning into grades. The gap between their potential and actual performance seems to be stemming from sources other than their intelligence or scholastic abilities.
- 6.2 **Some of the difficulties faced by the students seem to be originating in the family in the form of disturbed dynamics and low- quality of interaction:** in all cases, the family dynamics, inappropriate interactions and insufficient stimulation have caused disturbances in the child's development. Unrealistic expectations of the parent(s) and fear of parent's disapproval cause anxiety in the child reducing his/ her

- ability to perform during the exams. On the other hand, lack of expectations have resulted in lack of motivation and again lead to poor performance.
- 6.3 **Incongruence in social demands and value systems:** The students are exposed to a different culture in their peer group from that in the family. This discrepancy seems to be causing some incongruence in the development of their personality and emotional maturity. This causes some conflict in the behaviours and socialization of the students.
 - 6.4 **Personality profile:** All students show average to below average concrete thinking/ scholastic ability. Most of them show some amount of impatiens but are largely obedient, probably due to the socio-cultural demands of the middle class families they come from. They do however show poor social discipline when they feel that they can get away with it. Most of them also show a significant amount of apprehension and have low self- confidence.
 - 6.5 **Implications of the study:**The study demonstrates the need for a holistic approach towards counselling and has its implications in the areas of individual development, parenting, family dynamics and education. Further researches may be conducted to understand the role of family member, personal interactions and its effect on the development of the child’s personality. Also other dynamic models of counselling may be applied and tested.

VII. Conceptual Model for Counseling

Based on the findings a process of counselling has been conceptualized. This has been represented in the form of a model (Fig. 1) at the end of this section. The model has been described as follows: The process of counselling begins with a detailed assessment of the child to identify his/ her strengths in the form of psycho-social skills and competencies. In conjunction with this, an assessment can be made to understand and obtain details about the parenting style and affective structure of the family. This assessment helps to identify gaps in the interactions 1- between family members and the child and 2- interactions between the child and his/ her peers. It will also help us to understand the process by which the child get stimulated.

In the second stage, the students are counselled to help them in building their confidence and improve self- concept. The parents are also counselled so that they may motivate their child by building a supportive and positive environment in the family. Growth in self- confidence helps to improvement in academic performance which in turn will improve the child’s social skills and peer relationships. Support and encouragement from the parents helps the child to adjust better in his social milieu, thereby boost the development of a better personality. With counselling, there is not only improvement in individual capacities of student and family as a unit, they each nurture the sustenance of the other.



References

- [1] Annunziata D., Hogue A., Faw A., and Little H. A., Family Functioning and School Success in At-Risk, Inner-City Adolescents *Journal of Youth and Adolescence*, Volume 35, Issue 1, February 2006, pp 100–108
- [2] Barry J., The effect of socio-economic status on academic achievement, <http://soar.wichita.edu/handle/10057/616>
- [3] Caprara G. V., Vecchione M., Alessandri G., Gerbino M. and Barbaranelli C., The contribution of personality traits and self-efficacy beliefs to academic achievement: A longitudinal study, *The British Journal of Educational Psychology*, Volume 81, Issue 1, March 2011, Pages 78–96 First published: 18 November 2010, DOI: 10.1348/2044-8279.002004
- [4] Conard M. A., Aptitude is not enough: How personality and behavior predict academic performance; *Journal of Research in Personality*, Volume 40, Issue 3, June 2006, Pages 339–346 Published at: <http://dx.doi.org/10.1016/j.jrp.2004.10.003>
- [5] Eamon M. K., Social-Demographic, School, Neighborhood, and Parenting Influences on the Academic Achievement of Latino Young Adolescents, *Journal of Youth and Adolescence*, Volume 34, Issue 2, April 2005, pp 163–174; Cited as: Eamon, M.K. *J Youth Adolescence* (2005) 34: 163. doi:10.1007/s10964-005-3214-x
- [6] Jeynes W. H., The Relationship between Parental Involvement and Urban Secondary School Student Academic Achievement- A Meta-Analysis; *Urban Education* January 2007, vol. 42no.1, 82-110 doi: 10.1177/0042085906293818
- [7] Fajolu S. A., Aluede O. and Ojugo A. I. Parental involvement as a correlate of academic achievement of primary school pupils in Edo State, Nigeria; *Research in Education*, May 2016, vol. 95, no.1, 33-43 doi: 10.7227/RIE.0023
- [8] Farooq M. S., Chaudhry A.H., Shafiq M. and Berhanu G., Factors affecting students' quality of academic performance: a case of secondary school level, *Journal of Quality and Technology Management* Volume VII, Issue II, December, 2011, Page 01 - 14
- [9] Hill N. E. and Tyson D. F. Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology*, Vol 45(3), May 2009, 740-763
- [10] Komarraju M, Karau S. J. and Schmeck R.R., Role of the Big Five personality traits in predicting college students' academic motivation and achievement; *Learning and Individual Differences*, Volume 19, Issue 1, 1st Quarter 2009, Pages 47–52 Published at: <http://dx.doi.org/10.1016/j.lindif.2008.07.001>
- [11] Laidra K., Pullmann H. and Allik J. Personality and intelligence as predictors of academic achievement: A cross-sectional study from elementary to secondary school, *Personality and Individual Differences*; Volume 42, Issue 3, February 2007, Pages 441–451
- [12] Leeson P., Ciarrochi J. and Heaven P. C. L., Cognitive ability, personality, and academic performance in adolescence *Personality and Individual Differences*, Volume 45, Issue 7, November 2008, Pages 630–635 <http://dx.doi.org/10.1016/j.paid.2008.07.006>
- [13] Marsh H. W., and O'Mara A., Reciprocal Effects Between Academic Self-Concept, Self-Esteem, Achievement, and Attainment Over Seven Adolescent Years: Uni-dimensional and Multidimensional Perspectives of Self-Concept, *Personality and Social Psychology Bulletin*, vol. 34 no. 4, April 2008, 542-552 doi: 10.1177/0146167207312313;
- [14] Marsh H. W. and Martin A. J., Academic self-concept and academic achievement: Relations and causal ordering, *British Journal of Educational Psychology*, Volume 81, Issue 1, March 2011 Pages 59–77; First published: 10 March 2011 DOI: 10.1348/000709910X503501
- [15] Malecki C. K. and Demaray M. K., Social support as a buffer in the relationship between socioeconomic status and academic performance, *School Psychology Quarterly*, Vol 21(4), 2006, 375-395. <http://dx.doi.org/10.1037/h0084129>
- [16] Poropat A. E. A meta-analysis of the five-factor model of personality and academic performance *Psychological Bulletin*, Vol 135(2), Mar 2009, 322-338.
- [17] Sackett P. R.; Kuncel N. R., Arneson J. J., Cooper S. R. and Waters S. D., Does socioeconomic status explain the relationship between admissions tests and post-secondary academic performance? *Psychological Bulletin*, Vol 135(1), Jan 2009, 1-22 <http://dx.doi.org/10.1037/a0013978>
- [18] Stewart E. B., School Structural Characteristics, Student Effort, Peer Associations, and Parental Involvement - The Influence of School- and Individual-Level Factors on Academic Achievement, *Education and Urban Society* January 2008 vol. 40 no. 2 179-204 Published online before print June 29, 2007, doi: 10.1177/0013124507304167
- [19] Stewart E. B., Individual and School Structural Effects on African American High School Students' Academic Achievement, *The High School Journal*, Vol. 91, No. 2, Dec., 2007 - Jan., 2008, pp. 16-34; Published by: University of North Carolina Press; <http://www.jstor.org/stable/40364137>
- [20] Turner E. A., Chandler M. and Heffer R. W., The Influence of Parenting Styles, Achievement Motivation, and Self-Efficacy on Academic Performance in College Students, *Journal of College Student Development*, Volume 50, Number 3, May/June 2009, pp. 337-346
- [21] Wang Y., Deng C. and Yang X., Family economic status and parental involvement: Influences of parental expectation and perceived barriers, *School Psychology International*, October 2016, vol. 37, no. 5, 536-553 Published online before print September 19, 2016, doi: 10.1177/0143034316667646