

Correlates and Antecedents of Academic Achievement: A Systematic Review

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ABSTRACT Academic achievement of students reflects knowledge mastery, and skill development continues to be a major concern for academicians. It plays a pivotal role in determining students' career-seeking behaviour and future accomplishments. However, there is a lacuna in the comprehensive literature on academic achievement documentation. In this connection, the present study was undertaken to explore the correlates and antecedents that influence students' academic achievement. Ninety-four research studies from multiple databases were analysed using a thematic review design. Findings revealed that academic achievement is treated as the validation of an individuals' learning outcome through scholastic and non-scholastic credentials. The thematic analysis revealed various correlates and antecedents of academic achievement that were demographic, psychological, institutional, and family-related. The present review offers a comprehensive analysis of research conducted worldwide on students' academic achievement and provides valuable inputs for future researchers interested in the area.

INTRODUCTION

Academic performance outcome has been captivating the attention of responsible stakeholders in education. It is a significant determinant of students' future specifically, and the future of a nation in general. The educational institutions strive to ensure the attainment of the academic calibre of students. According to Adeyemo (2001, as cited in Dev 2016), "Schools may have other peripheral objectives, but the emphasis is always placed on the achievement of sound scholarship". Academic achievement is paramount, and it is treated as the validation of an individual student's learning outcome. The whole formal education system revolves around academic achievement reflecting students' overall holistic developments. Students are distinguished from one another based on their scholastic and non-scholastic performance outcomes. Academic achievement is considered a comprehensive and potential indicator of their future career.

In the words of Kohli (1975, as cited in Shah 2009), "Academic achievement is the level of proficiency attained in academic work or as formally acquired knowledge in the school subjects, which is often represented by the percentage of marks

obtained by students in examination". The authors reviewed ninety-four studies to analyse the measurement methods for assessing students' academic achievement in this study. It was found that twenty-seven studies had considered students' scores obtained in the class tests (El-Anzi 2005; Márquez et al. 2006; Kaur et al. 2010; Yazici et al. 2011; Nwadinigwe and Azuka-Obieke 2012; Chandra and Azimmudin 2013; Osuafor and Okonkwo 2013; Franky and Chamundeswari 2014; Effiong and Igiri 2015; Maiyo and Siah 2015; Mwangi et al. 2015; Dev 2016; Kaur and Kaur 2016; Pirmohamed et al. 2017; Zivcic-Becirevic et al. 2017; Dulay and Karadag 2017) and only seven studies (Nebbitt et al. 2009; Festus 2012; Akomolafe and Adesua 2016; Suvarna and Bhata 2016; Dandagal and Yarriswami 2017; Maxwell et al. 2017) had used different standardised tools to assess students' academic achievement. The current review also revealed that most studies conducted in Western countries used standardised tools to assess students' academic achievement. In developing countries, including India, it was observed that students' score obtained in the class tests was considered as their academic achievement.

Academic achievement of students reflecting knowledge mastery and skill development continues to be a major concern for academics. It is the main avenue to upward social mobility for students from rural and poor socioeconomic back-

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grounds. It plays a pivotal role in determining students' career-seeking behaviour and future accomplishments. Even though schools facilitate equal classroom instruction for all students, a wide range of differences is observed in their performance outcomes because of several related factors (Bacete and Ramirez 2001; Márquez et al. 2006; Maiyo and Siah, 2015; Pirmohamed et al. 2017). Besides, there is a lacuna in the documentation of comprehensive literature on different correlates and antecedents influencing students' academic achievement.

Objectives

The present study intends to provide a detailed review of students' academic achievement. It aims to explore the correlates and antecedents that influence students' academic achievement.

MATERIAL AND METHODS

In the study, a thematic review design was used. The pertinent literature for the last twenty years, from 2000 to 2020, have been extracted from different databases, including PsycINFO, ERIC, Web of Science, Scopus, GoogleScholar, JSTOR, ScienceDirect, and SpringerLink and focusing on the theme, studies were grouped into different sub-themes, including demographic, psychological, institutional, and family correlates. A total of ninety-four studies have been reviewed and analysed in the present study.

OBSERVATIONS AND DISCUSSION

Academic achievement is paramount in a formal institution. Henceforth, it is important to study the different correlates of students' academic achievement. In this study, the authors reviewed ninety-four published research studies and thematically categorised them into personal, psychological, family, and institution-related correlates.

A. Demographic Correlates of Academic Achievement

Demographic correlates, such as gender and age, play an essential role in students' academic performance outcomes. Earlier studies revealed distinct shreds of evidence on whether gender and age play any role in students' academic achievement. A study was conducted by Kaur et al. (2010)

with a sample of 948 students to explore the different correlates of Master of Education students' academic achievement at Open University Malaysia. It revealed that gender and age category had a significant association with students' academic performance (CGPA). It brought out that a higher percentage of students from all age groups had obtained a CGPA of 3.0 and above. Also, students from the age group 31-35 fared most favourably, with 80.4 percent having a CGPA of 3.00 and above. The stepwise regression model showed a significant effect of demographic variables on CGPA.

Similarly, a study was conducted by Suvarna and Bhata (2016) to determine the association of gender and age with academic achievement among 300 student participants. The findings revealed a significant association of students' academic achievement with their gender and age. Again, an investigation was conducted by Yazici et al. (2011) to determine the influence of gender and age on high school students' academic achievement with a total of 407 samples. In the study, findings showed that age and gender are significant predictors of students' academic achievement. However, a study by Chandra and Azimmudin (2013) examining the influence of gender on secondary students' academic achievement showed no significant influence of gender on students' academic achievement. Thus, it can be said that the supportive studies on the role of age and gender in students' academic achievement brought out a contradictory finding. More research is required to revalidate these findings and understand the influence of demographic variables on students' academic achievement.

B. Psychological Correlates of Academic Achievement

Psychological correlates, such as academic motivation, academic resilience, study habits, general mental ability, intelligence, emotional intelligence, personality, psychological capital, self-concept, and self-esteem, were positively associated with students' academic achievement. The current study briefs these correlates as follows.

Academic Motivation

Affective factors play an important role in students' academic achievement. Research evidenced affective factors, including attitudes, behaviours, and academic motivation was evidenced as corre-

lates of students' academic achievement. In a study, Kaur and Kaur (2016) investigated the relationship between secondary students' academic motivation and academic achievement was determined with a sample of 300 secondary students of Patiala. The results showed a positive correlation between academic motivation and academic achievement.

Further, with a total of 238 African American adolescents aged 13 to 19 years (mean = 15.6 years), Nebbitt et al. (2009) endeavoured to determine the impact of attitudes and actions on academic achievement. The findings revealed that students who engaged in antisocial behaviours and were exposed to delinquent classmates were less likely to get above-average grades. In contrast, those who spent their time in family activities and had unfavourable attitudes about distractions were more likely to achieve above-average scores. In another study, Fakeye (2010) studied personal variables such as attitude and academic ability as correlates of academic achievement on a sample of 400 senior secondary students. The results revealed a significant positive association between students' attitudes and English Language academic achievement.

Zivcic-Becirevic et al. (2017) also performed research to uncover specific cognitive, motivational, and behavioural determinants of two measures of university students' academic accomplishment (grade point and efficacy status). For the study, 250 undergraduate students were chosen as a representative sample. The data demonstrated that cognitive, behavioural, and motivational aspects all have a role in students' academic achievement. It was discovered that students' efficacy status and GPA were most strongly influenced by their fear of disappointing their parents, time management skills, and study environment management skills. Thus, from the analysis, it can be inferred that affective factors, like attitude, behaviour, and motivation, have a remarkable influence on the students' academic achievement. No contradictory claim was evidenced in any of the studies. Therefore, stakeholders in education are required to direct attention towards developing students' healthy attitude, behaviour, and motivation leading to the enhancement of their academic achievement.

Academic Resilience

Academic resilience denotes the ability of students to achieve good academic outcomes despite adversity and challenges. Studies found academic

resilience as a positive indicator of students' performance outcomes. With 390 students, Mwangi et al. (2015) attempted to establish a connection between academic resilience and academic accomplishment in secondary school pupils. The findings revealed a positive and significant association between academic resilience and student academic achievement, implying that strengthening students' academic resilience will improve academic achievement. In a similar study, Mwangi et al. (2015) examined 390 samples to assess the association between academic resilience and student academic achievement. Pearson's product-moment correlation revealed a strong and substantial relationship between pupils' academic resilience and academic achievement. Furthermore, few studies have found a continuous positive relationship between academic resilience and academic achievement in students (Hanson 2003; Wasonga et al. 2003; Waxman et al. 2006; Herrero 2014; Martin and Marsh 2006).

Study Habits

Study habits are aiding students' learning ability resulting in their better academic performance. It is a routine that locates one's timing and subject selection for the study. The research has revealed that a systematic study pattern may lead to having good performance outcomes. Maiyo and Siah (2015) investigated the association between study habits and academic achievement of high secondary students, and a total of 85 individuals were selected using a stratified random sample technique. The data demonstrated a significant positive association between students' study habits and their academic achievement, implying that attempts to improve students' study habits will result in improved performance. In a similar study, Jafari et al. (2019) looked into the relationship between study habits and academic accomplishment in 380 medical science students. Palsane and Sharma's study findings revealed a direct and significant association between study habits and academic achievement. The study also recommended that teachers attempt to assist students in learning new skills or altering their study habits to improve their academic performance. Furthermore, a few studies have found a continuous link between students' study habits and academic achievements (Mendezabal 2013; Lawrence 2014; Arora 2016; Alimohamadi et al. 2018).

General Mental Ability

With a sample of 516 11-year-old Australian children, Marjoribanks (2001) investigated the association between pupils' intellectual ability and maths and word achievement. The findings revealed substantial correlations between the factors. Intellect was discovered to be a substantial predictor of mathematical proficiency. Dev (2016) looked into the relationship between academic accomplishment and general mental capacity in students. A total of 110 children (13-14 years old) from Delhi's Kendriya Vidyalayas were chosen for the study. The results of the Class 7 annual examinations were gathered. The findings revealed that there is a positive and significant link between academic accomplishment and general mental capacity in students. Besides, a few studies also supported a consistent relationship between general mental ability and students' academic achievements (Song et al. 2010; George et al. 2016; Soni 2020). Thus, it can be said that students' general mental ability helps enhance their academic achievement, and there is no contradiction with these findings.

Intelligence

Intelligence is defined in multiple ways. Notwithstanding, according to David Wechsler (1944), "Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally, and to deal effectively with his environment" (Mangal 2014). Existing studies have found that intelligence positively impacts pupils' academic achievement. With 614 students from ninth and tenth grades, Chandra and Azimmudin (2013) investigated the impact of intelligence on secondary students' academic achievement. The study discovered that intelligence has a significant positive impact on pupils' academic achievement. Dandagal and Yarriswami (2017) conducted another study that looked at high school students' academic achievement related to their intelligence quotient (IQ). The findings revealed that intelligence has an impact on pupils' academic performance. Furthermore, a few studies have found a consistent association between intelligence and academic achievement in students (Behra 2002; Deary et al. 2007; Laidra et al. 2007; Watkins 2007; Naderi et al. 2010; Chandra and Azimmudin 2013). As a result, it is inferred that intelligence improves a student's abil-

ity to learn, and students with a higher degree of intelligence do better than those with a lower level of intelligence.

Emotional Intelligence

Emotional intelligence is the ability to recognise and use one's own emotions in a healthy way to have strong interpersonal interactions and understanding. Previous research has found a link between academic achievement and emotional intelligence in students. With 321 samples, Chamundeswari (2013) investigated the association between higher secondary pupils' emotional intelligence and academic achievement. The findings revealed that emotional intelligence and academic achievement have a significant positive link. Similarly, Nwadinigwe and Azuka-Obieke (2012) examined 156 samples to determine the impact of emotional intelligence on secondary students' academic achievement, and they found a strong positive relationship between emotional intelligence skills and students' academic achievement.

Furthermore, Márquez et al. (2006) conducted a correlational study with a total sample of 77 high school students to examine the relationship between emotional intelligence and academic achievement. The findings revealed a positive connection between students' emotional intelligence and academic achievement. However, a study by Festus (2012) examined if there is a significant relationship between emotional intelligence and academic achievement of students in mathematics with a total of 1160 samples, and it was reported that there is a low significant positive relationship between the variables. Further, a few studies have also found a positive correlation between students' emotional intelligence and academic achievement (Devi and Mayuri 2005; Scott 2006; Sridevi and Parveen 2008; Salomi et al. 2009; Fallahzadeh 2011; Chamundeswari 2013; Shah et al. 2014). Thus, from the analysis, it can be concluded that all data are equally confirmatory, implying that improving emotional intelligence will result in students' improved academic achievement.

Personality

Personality is an important psychological correlate of students' academic achievement. According to Allport (1937), personality is the dynamic

organisation within the individual of those psychophysical systems that determine their unique adjustment to the environment (Sharma and Malhotra 2007). The existing studies revealed that there might be a significant association of students' academic achievement with their personality. With 300 secondary students, Suvama and Bhata (2016) examined the relationship between students' personalities and academic achievement. The findings revealed a low but positive relationship between academic achievement and the personality of students. Further, few more studies had also validated this consistent relationship between personality and students' academic achievements (Chomoro-Premuzic and Furnham 2003; Duff et al. 2004; Hair and Graziano 2003; Bratko et al. 2006; Klinkozs et al. 2006; Laidra et al. 2007; Melissa et al. 2007; Hakimi et al. 2011; Ciorbea and Pasarica 2013; Andersen et al. 2020). Henceforth, it can be said that developing a personality may lead to the enhancement of students' academic achievement.

Psychological Capital (PsyCap)

According to Luthans and Youssef (2004, as cited in Luthans et al. 2007), psychological capital is an individual's positive and developmental state, defined by hope, self-efficacy, optimism, and resilience. According to previous research, psychological capital affected students' academic achievement. With a total of 520 first-year university students, Mohebbi et al. (2014) investigated the relationship between psychological capital, academic aspirations, and academic success. According to the data, the PsyCap had a positive relationship with a student's academic goals and academic achievement. Similarly, Feng et al. (2015) examined a sample of 392 left-behind junior high school students to determine the association between psychological capital and academic achievement. PsyCap and academic achievement have a significant association, according to the findings.

Further, Kuo et al. (2011) investigated the relationship among psychological capital, learning strategies, and academic achievements with a sample of 802 college students, and it was revealed that there was a significant relationship among the variables where PsyCap predicted students' academic achievements. Moreover, this significant and positive relationship between psychological capital and students' academic achievement was fur-

ther evidenced by other researchers (Bressler et al. 2010; Chen 2018; Kuar et al. 2018; Meng 2018; Nambudiri et al. 2019). So, herewith it is urged to academicians to foster the four core constructs of PsyCap in students to help them perform better in their academics.

Self-concept

Self-concept is the mental picture of who individuals are. Carl Rogers defined *self-concept* as "the organised, consistent set of perceptions and beliefs about oneself" (Onuoha et al. 2016). The earlier studies have shown how individuals perceive self as influences on students' academic achievement. In a study with 120 students, Emmanuel et al. (2014) investigated the relationship between high school students' academic self-concept and academic achievement. It was discovered that students' self-concept and academic achievement have a significant positive relationship. However, Harbst (2011) examined the association of university psychology students' academic achievement with their self-concept. A total of 21 students participated in the research. The results showed no significant positive association between students' academic achievement and self-concept. Thus, it can be said that there are contradictory findings between these two studies. Primary evidence suggested that students' academic self-concept is vital for improving the level of their academic performance. However, more correlational and empirical research is needed for the theoretical generalisation of the same.

Self-esteem

Self-esteem is an individual's overall subjective evaluation of one's worth. Academic research has shown that there may be an influence of how individuals' thinking about themselves may influence their academic performance outcomes. With a total of 100 pre-university students, Aryana (2010) investigated the relationship between pre-university students' self-esteem and academic achievement. The findings revealed a significant positive relationship between students' self-esteem and academic achievement. In a similar study, Santos (2020) determined the relationship between students' performance and self-esteem with a sample size of 120 pupils. The results showed a significant relationship between students' self-esteem and

academic performance. Besides, with 400 male and female students, El-Anzi (2005) also examined the relationship between college students' academic achievement and self-esteem. The findings revealed a significant positive relationship between students' academic achievement and self-esteem. Further, a few studies also revealed a consistent correlation between self-esteem and students' academic achievements (Tremblay et al. 2000; Fathi-Ashtiani et al. 2007; Pullmann and Allik 2008; Aryana 2010; Rahmani 2011; Booth and Gerard 2011; Arshad et al. 2015; Damota et al. 2019). Thus, all the studies had confirmatory findings. Henceforth, it is convinced that self-esteem plays a significant role in determining students' academic achievement.

C. Institutional Correlates of Academic Achievement

The institutional climate is the basis of an enabling learning environment. It includes institutional structure, culture, interaction, systems, and psychological atmosphere. The authors have found few studies on the associations of institutional climate with students' academic achievement. In a study, Maxwell et al. (2017) endeavoured to determine the impact of staff and student perceptions of school climate on students' academic achievement. A sample of 760 staff and 2257 students participated in the study. The findings showed that students' opinions of school climate had explained their writing and numeracy achievement, and this effect was mediated by their psychological affiliation with the schools. Furthermore, staff opinions of the school atmosphere significantly impacted children's performance on numeracy, writing, and reading examinations. Another study conducted by Dulay and Karadag (2017) with a sample size of 148,504 subjects showed a medium-level positive effect of school climate on students' achievement. However, Harbst (2011) examined the association between students' academic achievement and teacher expectation with a sample of 21 students and found no significant positive association between the students' academic achievement with the teacher expectation. Henceforth, the literature revealed a mixed finding on the influence of institution-related variables on students' academic achievement. Despite this, it can be inferred that school climate plays an important

role in students' academic achievement, and thereby it is necessary to create an enabling school environment to increase the level of students' academic achievement. Besides, academicians are urged to conduct further research studies to re-establish the validity of these findings.

D. Family Correlates of Academic Achievement

Home is the first school, where a child begins to learn their first lesson. The authors found different shreds of evidence on the influence of family-related factors on students' academic achievement. In a study, Gooding (2001) had investigated the relationship between parental educational level and academic success of college freshmen with a total of 1784 students at Iowa State University. The findings revealed that parental educational level, family structure/marital status, and income positively influence students' academic potential and achievement. In another study, Sanni and Bolu-steve (2013) also revealed a significant difference in students' academic achievement based on the family type. A study was conducted by Marjoribanks (2001) to examine the relationships among students' (children) family social status, family learning environments, and mathematics and word achievement. The data collection was done from a total of 516 11-year old Australian children and their parents. The results showed significant relationships among the variables. Also, it was reported that the family and ability combined have significant associations with word scores. Besides, a study was conducted by Franky and Chamundeswari (2014) to investigate the social correlates of academic achievements of secondary students with a sample size of 96 students. The findings showed a significant positive correlation between students' socioeconomic status and academic achievement. However, while Osuafor and Okonkwo (2013) determined the influence of family background of students on their academic achievement in Biology using a survey research design and with a total of 545 senior secondary students, findings revealed that family structure, parents' occupation, and their educational level did not have a significant influence on students' achievement in Biology. Similarly, Sanni and Bolu-steve (2013) endeavoured to determine the influence of family background on secondary students' academic performance with a total of 300 respondents. The results showed no significant differ-

ence in the influence of family background on students' academic achievement. Furthermore, with 300 junior secondary school students, Effiong and Igiri (2015) investigated the influence of family background on students' academic achievement. The findings revealed no significant influence of polygamous/monogamous homes, birth order, and literate and illiterate parents on students' academic achievement.

Furthermore, a study was conducted by Crede et al. (2015) to examine the role of parents' education on students' academic achievement. A total of 411 students were selected for the study. The findings showed that the mother's education functioned as a moderator of the relationship between students' academic achievement and life satisfaction. However, the father's education did not moderate the relationship. While understanding the role of parental involvement and family socioeconomic status, it was found that academic achievement is directly influenced by the cultural level of the family and their intelligence. However, it is indirectly influenced by parental involvement in school activities and the socioeconomic status of the students' family (Bacete and Remírez 2001). Similarly, a study convinced that parental role is significant in determining the positive influence of peer groups, and both should be promoted to increase the level of students' academic performance (Akomolafe and Adesua 2016). Thus, herewith it can be said that the role of family and its associated factors are positively affecting students' academic achievement. However, the role of few associative factors, such as family backgrounds, father's education, and parents' occupations in the students' academic achievement was found to be contradictory and thereby it has urged novice researchers to investigate their role to re-establish the validity of these findings.

The review analysis of measurements of academic achievement found that most of the studies considered students' scores obtained from the class tests as their academic achievement. This finding was confirmed in the case of all the studies from India included in this review. However, few studies from western countries had used standardised tests for students' academic achievement. Since the class tests are usually teacher-made and not standardised they might not reflect the actual academic achievements of students. Findings from

such studies need to be evaluated in the context of the study.

Analysis of related literature from 2000-2020 revealed various demographic, psychological, institutional, and family-related correlates that affected students' academic achievement. The analysis from demographic correlates showed a significant association of gender and age with students' academic achievement. However, a few studies had rejected this finding at the $p < 0.05$ level of significance, which shows that more studies are needed to examine these findings.

Further, the analysis from psychological correlates revealed direct and position associations of students' academic achievement with their academic motivation, academic resilience, study habits, general mental ability, intelligence, emotional intelligence, personality, and psychological capital (Feng et al. 2015; Chen 2018; Kuar et al. 2018; Meng 2018; Nambudiri et al. 2019; Santos 2020; Damota et al. 2019). It was also found that these psychological correlates, such as academic motivation, academic resilience, emotional intelligence, and psychological capital, had predicted students' academic achievement at the $p < 0.05$ level of significance, indicating a significant contribution in improving students' academic achievement.

Again, it was found that the institutional correlates such as institutional climates, teachers' and staffs' perceptions had a significant relationship with students' academic achievement (Maxwell et al. 2017). However, the findings had been refuted by a few studies indicating no significant association or contribution of teachers' and staffs' perceptions to students' academic achievement. Further studies with standardised testing are needed to verify these findings and establish the relationship.

Furthermore, the findings from family-related correlates revealed that family structure, family learning environment, parental education, and parents' occupation are significantly associated with students' academic achievement (Effiong and Igiri 2015; Akomolafe and Adesua 2016). Notwithstanding, few studies had disproved the influence of family backgrounds, father's education, and parents' occupations on students' academic achievement.

CONCLUSION

The present study has provided an overview of different aspects of students' academic achievement. The analysis has embroidered the concept

of academic achievement and its correlates and antecedents. Also, details of how students' academic achievement can be better understood and how various factors influence students' academic achievement are substantiated. The current study revealed that students' academic achievement has mostly been studied using survey methods. Also, most of the studies had used classroom test scores as students' academic achievement, while a few studies had assessed students' achievement using standardised tools. It was evident that the correlates, like academic motivation, general mental ability, academic resilience, intelligence, study habits, personality, self-esteem, efficacy, emotional intelligence, mother's education, peer-group, institutional climate, had a direct and positive effect on students' academic achievement. These findings highlighted the need for considering these factors while trying to better students' academic achievement in institutions.

RECOMMENDATIONS

Through analysis of the present status quo of academic achievement research, it was found that most of the studies had used classroom test scores as students' academic achievement, and no study in India used a standardised test for assessing students' academic achievement. Henceforth, a study may be conducted to understand students' academic achievement using a standardised tool. Besides, as findings of correlates of academic achievement found to be contradictory, especially for age, gender, self-concept, family backgrounds, parents' education, parents' occupations, and teachers' expectations, there is a need to revalidate these findings. The correlates, as well as their respective influence, need to be further understood in different institutional settings for the benefits of academic achievement research. There is also a need to understand students' academic achievement at different levels, including school, college, and university, using a cross-sectional research design.

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REFERENCES

- Akomolafe CO, Adesua VO 2016. Peer group and parental support as correlates of academic performance of senior secondary school students in South West, Nigeria. *European Scientific Journal*, 12(7): 306-315.
- Alimohamadi N, Dehghani M, Saeide et al. 2018. Relation study between study habit and academic performance of nursing students in Hamadan. *Pajouhan Sci J*, 16(3): 29-38. DOI:10.21859/psj.16.3.29
- Andersen SC, Gensowski M, Ludeke SG, John OP 2020. A stable relationship between personality and academic performance from childhood through adolescence. An original study and replication in hundred thousand person samples. *Journal of Personality*, 88(5): 925-939.
- Arora R 2016. Academic achievement of adolescents in relation to study habits. *Int J Indian Psychol*, 3(9): 48-54.
- Arshad M, Zaidi, SMIH, Mahmood K 2015. Self-esteem & academic performance among university students. *Journal of Education and Practice*, 6(1): 156-162.
- Aryana M 2010. Relationship between self-esteem and academic achievement amongst pre-university students. *Journal of Applied Sciences*, 10(20): 2474-2477.
- Bacete FJG, Ramirez JR 2001. Family and personal correlates of academic achievement. *Psychological Reports*, 88(2): 533-547.
- Behra AK 2002. *Intelligence, Achievement Motivation and Personality of Vocational Students in Relation to Academic Achievement*. PhD Thesis in Education, Unpublished. Chandigarh: Punjab University.
- Booth MZ, Gerard JM 2011. Self-esteem and academic achievement: A comparative study of adolescent students in England and the United States. *Compare: A Journal of Comparative and International Education*, 41(5): 629-648.
- Bratko D, Chamorro T, Saks Z 2006. Personality and school performance: Incremental validity of self and peer-ratings over intelligence. *Personality and Individual Differences*, 41: 131-142.
- Bressler LA, Bressler ME, Bressler MS 2010. The role and relationship of hope, optimism and goal setting in achieving academic success: A study of students enrolled in online accounting courses. *Academy of Educational Leadership Journal*, 14(4): 37-51.
- Chamundeswari S 2013. Emotional intelligence and academic achievement among students at the higher secondary level. *International Journal of Academic Research in Economics and Management Sciences*, 2(4): 178-187.
- Chandra R, Azimmudin S 2013. Influence of intelligence and gender on academic achievement of secondary school students of Lucknow City. *IOSR Journal of Humanities and Social Science*, 17(5): 9-14.
- Chen D 2018. Research on the Influence of Psychological Capital on College Students' Academic Achievements. In: 3rd International Conference on Judicial, Administrative and Humanitarian Problems of State Structures and Economic Subjects. Atlantis Press. From <<https://download.atlantis-press.com/article/25902185.pdf>> (Retrieved on 23 March 2021).
- Chomoro-Premuzic T, Furnham A 2003. Personality predicts academic performance: Evidence from two longi-

- tudinal university samples. *Journal of Research in Personality*, 37(4): 319-338.
- Ciorbea I, Pasarica F 2013. The study of the relationship between personality and academic performance. *Procedia-Social and Behavioral Sciences*, 78: 400-404.
- Crede J, Wirthwein L, McElvany N, Steinmayr R 2015. Adolescents' academic achievement and life satisfaction: The role of parents' education. *Frontiers in Psychology*, 6: 1-8.
- Damota MD, Ibrahim EH, Woldemariam HH, Kifle GT 2019. The relationship between self-esteem and academic achievement among Addis Ababa University undergraduate psychology students. *Journal of Education and Practice*, 10(4): 26-33.
- Dandagal SN, Yarriswami MC 2017. A study of intelligence in relation to academic achievement of secondary school students. *International Journal of Advanced Research*, 4(3): 64-67.
- Deary IJ, Strand S, Smith P, Fernandes C 2007. Intelligence and educational achievement. *Intelligence*, 35(1): 13-21.
- Dev M 2016. Factors affecting the academic achievement: A study of elementary school students of NCR Delhi, India. *Journal of Education and Practice*, 7(4): 70-74.
- Devi UL, Mayuri K 2005. Relationship between emotional intelligence and academic achievement of adolescents. *Journal of Education & Psychology*, 72(2): 2-10.
- Duff A, Boyle E, Dunleavy K, Ferguson J 2004. The relationship between personality, approach to learning and academic performance. *Personality and Individual Differences*, 36: 1907-1920.
- Dulay S, Karadağ E 2017. The effect of school climate on student achievement. In: E Karadağ (Ed.): *The Factors Effecting Student Achievement*. Cham: Springer, pp. 199-213. DOI: 10.1007/978-3-319-56083-0_12
- Effiong OE, Igiri CE 2015. The Influence of family background on the academic achievement of students in basic science. *International Letters of Social and Humanistic Sciences*, 59: 20-27.
- El-Anzi FO 2005. Academic achievement and its relationship with anxiety, self-esteem, optimism, and pessimism in Kuwaiti students. *Social Behavior and Personality: An International Journal*, 33(1): 95-104.
- Emmanuel AO, Adom EA, Josephine B, Solomon FK 2014. Achievement motivation, academic self-concept and academic achievement among high school students. *European Journal of Research and Reflection in Educational Sciences*, 2(2): 24-37.
- Fakeye DO 2010. Students' personal variables as correlates of academic achievement in English as a second language in Nigeria. *Journal of Social Sciences*, 22(3): 205-211.
- Fallahzadeh H 2011. The relationship between emotional intelligence and academic achievement in medical science students in Iran. *Procedia-Social and Behavioral Sciences*, 30: 1461-1466.
- Fathi-Ashtiani A, Ejei J, Khodapanahi MK, Tarkhorani H 2007. Relationship between self-concept, self-esteem, anxiety, depression and academic achievement in adolescents. *Journal of Applied Sciences*, 7(7): 955-1000.
- Feng ZY, Xu MJ, Huang XN, Yang XG, Pei KN 2015. Relationship between school climate, psychological capital and academic achievement of left-behind students in junior middle school. *Chinese Journal of Child Health Care*, 23(12): 1246-1248. DOI: 10.11852/zgetbjzz2015-23-12-05
- Festus AB 2012. The relationship between emotional intelligence and academic achievement of senior secondary school students in the Federal Capital Territory, Abuja. *Journal of Education and Practice*, 3(10): 13-19.
- Franky D, Chamundeswari S 2014. Psycho-social correlates of academic achievement of students. *International Journal of Current Research and Academic Review*, 2(2): 148-158.
- George T, Scholar ME, Amalraj A 2016. Relationship between mental ability and academic achievement in mathematics of secondary school students. *Research and Reflections on Education*, 2(14): 1-9.
- Gooding Y 2001. The relationship between parental educational level and academic success of college freshmen. *Retrospective Theses and Dissertation*, Paper 429.
- Hair EC, Graziano WG 2003. Self-esteem, personality and achievement in high school: A prospective longitudinal study in Texas. *Journal of Personality*, 71: 971-994.
- Hakimi S, Hejazi E, Lavasani MG 2011. The relationships between personality traits and students' academic achievement. *Procedia-Social and Behavioral Sciences*, 29: 836-845.
- Hanson TL, Austin G, Lee-Bayha J 2003. *Student Health Risks, Resilience, and Academic Performance*. Los Alamitos, CA: WestEd.
- Harbst M 2011. Factors in academic achievement: Correlations between clearly expressed expectations from a figure of authority, academic achievement, and self-concept. *McNair Scholars Research Journal*, 7(1): 14-18.
- Herrero DM 2014. *The Relationship among Achievement Motivation, Hope, and Resilience and Their Effects on Academic Achievement Among First-Year College Students Enrolled in a Hispanic-Serving Institution*. Doctoral Dissertation. Texas, USA: Texas A&M University-Corpus Christi.
- Jafari H, Aghaei A, Khatony A 2019. Relationship between study habits and academic achievement in students of medical sciences in Kermanshah-Iran. *Advances in Medical Education and Practice*, 10:637-643.
- Kaur K, Tek CH, Lee N 2010. Correlates of Academic Achievement for Master of Education Students at Open University Malaysia. Paper presented in 6th Pan Commonwealth Forum on Open Learning, 24-28 November, 2010, Kochi, India. From <http://oasis.col.org/bitstream/handle/11599/2187/2010_KaurK_etal_Correlates_academic_achievement.pdf?sequence=1> (Retrieved on 21 March 2021).
- Kaur K, Kaur P 2016. Academic achievement and achievement motivation as correlates of academic stress among secondary school students. *International Journal of Scientific Research*, 5(11): 674-675.
- Klinkozs W, Sekowski A, Brambring M 2006. Academic achievement and personality in university students who are visually impaired. *Journal of Visual Impairment Blindness*, 100(11): 666-675.
- Kuar Look-Sin, NgLee-Peng, ChoongYuen-Onn, TanChun-Eng, TeohSok-Yee 2018. The role of psychological capital in predicting academic achievement among undergraduate students of a Malaysian private university. *International Journal of Engineering & Technology*, 7(3.35): 173-176.
- Kuo Z, Lifei F, Jingxin W 2011. The relation of psychological capital, learning strategies and academic achievement of undergraduates. *Psychological Exploration*, 8(1): 7-16.

- Laidra K, Pullmann H, Allik J 2007. Personality and intelligence as predictors of academic achievement: A cross-sectional study from elementary to secondary school. *Personality and Individual Differences*, 42(3): 441-451.
- Lawrence A 2014. Relationship between study habits and academic achievement of higher secondary school students. *Online Submission*, 4(6): 143-145.
- Luthans F, Avolio BJ, Avey JB, Norman SM 2007. Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60(3): 541-572.
- Maiyo J, Siah EA 2015. Study of the relationship between study habits and academic achievement of students: A case of Spicer Higher Secondary School, India. *International Journal of Educational Administration and Policy Studies*, 7(7): 134-141.
- Mangal SK 2014. *Advanced Educational Psychology*. Delhi: PHI Learning Private Limited.
- Marjoribanks K 2001. Family and ability correlates of academic achievement. *Psychological Reports*, 89(3): 510-512.
- Márquez PGO, Martín RP, Brackett MA 2006. Relating emotional intelligence to social competence and academic achievement in high school students. *Psicothema*, 18: 118-123.
- Martin AJ, Marsh HW 2006. Academic resilience and its psychological and educational correlates: A construct validity approach. *Psychology in the Schools*, 43(3): 267-281.
- Maxwell S, Reynolds KJ, Lee E, Subasic E, Bromhead D 2017. The impact of school climate and school identification on academic achievement: Multilevel modeling with student and teacher data. *Frontiers in Psychology*, 8: 1-21.
- Melissa C, Sampo C, Paunonen V 2007. Big five personality predictors of post secondary academic performance. *Personality and Individual Differences*, 43: 437-448.
- Mendezabal MJN 2013. Study habits and attitudes: the road to academic success. *Open Sci Repository*, e70081928.
- Meng Yuan 2018. The Relationship between Psychological Capital and Academic Achievement Among 6-Year System Government-sponsored Normal Students. *Journal of Hunan First Normal University*, 8(2):17-23. From <https://en.cnki.com.cn/Article_en/CJFDTotal-DYHN201802008.htm> (Retrieved on 21 March 2021).
- Mohebbi NMH, Shahany M, Sharifi HP 2014. The relationship of psychological capital (hope, optimism, resiliency and self-efficacy) with the achievement goals and academic performance of the first-year students. *Curriculum Planning Knowledge & Research in Educational Sciences*, 11(13): 61-79.
- Mwangi CN, Okatcha FM, Kinai TK, Ireri AM 2015. Relationship between academic resilience and academic achievement among secondary school students in Kiambu County, Kenya. *International Journal of School and Cognitive Psychology*, 2(3): 1-5. DOI: 10.4172/2469-9837.S2-003
- Naderi H, Abdullah R, Aizan HT, Sharir J 2010. Intelligence and academic achievement: An investigation of gender differences. *Life Science Journal*, 7(1): 83-87.
- Nambudiri R, Shaik R, Tiwari S, Ghulyani S 2019. Role of personality traits and psychological capital in academic achievement: A longitudinal study. *Academy of Management Proceedings*, 1: 18116. <https://doi.org/10.5465/AMBPP.2019.18116abstract>
- Nebbitt VE, Lombe M, LaPoint V, Bryant D 2009. Predictors and correlates of academic performance among urban African American adolescents. *The Journal of Negro Education*, 78(1): 29-41.
- Nwadinigwe IP, Azuka-Obieke U 2012. The impact of emotional intelligence on academic achievement of senior secondary school students in Lagos, Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(4): 395-401.
- Onuoha UD, Ogunjinmi T, Owodunni M 2016. Role clarity, self-concept and job satisfaction of library personnel in selected university libraries in Ogun State, Nigeria. *Journal of applied and Journal of Applied Information Science and Technology*, 9(2): 9-16.
- Osuafor A, Okonkwo I 2013. Influence of family background on academic achievement of secondary school biology students in Anambra State. *African Research Review*, 7(3): 156-167.
- Pirmohamed S, Debowska A, Boduszek D 2017. Gender differences in the correlates of academic achievement among university students. *Journal of Applied Research in Higher Education*, 9(2): 313-324.
- Pullmann H, Allik J 2008. Relations of academic and general self-esteem to school achievement. *Personality and Individual Differences*, 45(6): 559-564.
- Rahmani P 2011. The relationship between self-esteem, achievement goals and academic achievement among the primary school students. *Procedia-Social and Behavioral Sciences*, 29(2011): 803-808.
- Salomi SO, Ogundoyin, Kun M 2009. Emotional intelligence and academic self-efficacy as predictors of academic performance among senior secondary school students in Oyo state, Nigeria. *Perspective in Education Silver*, 25(3): 175-185.
- Sanni WO, Bolu-steve FN 2013. Influence of family background on the academic performance of secondary school students in Nigeria. *IFE Psychologia: An International Journal*, 21(1): 90-100.
- Santos M 2020. Psychosocial Correlates of Academic Performance Among Primary School Pupils. Project Topics. From <<https://www.projecttopics.org/psychosocial-correlates-of-academic-performance-among-primary-school-pupils.html>> (Retrieved on 25 March 2021).
- Scott A 2006. Contribution of emotional intelligence to the social academic success of gifted adolescents. *British Journal of Educational Psychology*, 56(2): 25-30.
- Shah CJ, Sanisara M, Mehta HB, Vaghela HM 2014. The relationship between emotional intelligence and academic achievement in medical undergraduate. *Int J Res Med Sci*, 2(1): 59-61.
- Shah SSA 2009. Impact of teachers' behaviour on the academic achievement of university students. *Journal of College Teaching & Learning (TLC)*, 6(1): 69-74.
- Sharma A, Malhotra D 2007. *Personality and Social Norms*. Delhi, India: Concept Publishing Company.
- Song LJ, Huang GH, Peng KZ, Law KS, Wong CS, Chen Z 2010. The differential effects of general mental ability and emotional intelligence on academic performance and social interactions. *Intelligence*, 38(1): 137-143.
- Soni S 2020. A study on relationship between mental ability and academic achievement of students. *IJRAR- International Journal of Research and Analytical Reviews*, 7(2): 369-374.

- Sridevi K, Parveen L 2008. Relationship of emotional intelligence, adjustment, self-concept and scholastic achievement of higher secondary students. *Journal of Educational Research and Extension*, 45(2): 38-49.
- Suvama VD, Bhata GH 2016. A study on academic achievement and personality of secondary school students. *Istrazivanja u Pedagogiji*, 6(1): 99-108.
- Tremblay MS, Inman JW, Willms JD 2000. The relationship between physical activity, self-esteem, and academic achievement in 12-year-old children. *Pediatric Exercise Science*, 12(3): 312-323.
- Wasonga T, Christman DE, Kilmer L 2003. Ethnicity, gender and age: Predicting resilience and academic achievement among urban high school students. *American Secondary Education*, 32(1): 62-74.
- Watkins MW, Lei PW, Canivez GL 2007. Psychometric intelligence and achievement: A cross-legged panel analysis. *Intelligence*, 35(1): 59-68.
- Waxman HC, Padrón YN, Gray JP (Eds.) 2006. *Educational Resiliency: Student, Teacher, and School Perspectives*. Texas, USA: IAP.
- Yazici H, Seyis S, Altun F 2011. Emotional intelligence and self-efficacy beliefs as predictors of academic achievement among high school students. *Procedia-Social and Behavioral Sciences*, 15: 2319-2323.
- Zivcic-Becirevic I, Smojver-Azic S, Martinac Doric T 2017. Predictors of university students' academic achievement: A prospective study. *Društvena Istrazivanja: Ėasopis Za Opća Društvena Pitanja*, 26(4): 457-476.

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