AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.14 (2), January-April, 2025 https://ajemates.org

THE ROLE OF PERSONALITY TYPE VARIABLES IN SHAPING THE EDUCATIONAL CAREER ASPIRATIONS OF SENIOR SECONDARY SCHOOL STUDENTS IN ANAMBRA STATE

Uju Christiana Nwanna
E-mail: cu.nwanna@unizik.edu.ng
Department of Guidance and Counselling,
Faculty of Education, Nnamdi Azikiwe University, Awka

ABSTRACT

This research explores how personality types (Realistic, Investigative, and Artistic) shape the educational career aspirations of senior secondary school students in Anambra State, Nigeria. The study utilized a correlation research design to address three research questions and test three null hypotheses at a significance level of 0.05. The sample comprised 2,700 SS1 and SS2 students selected from a total population of 40,161 senior secondary school students in Anambra State. Data was collected using validated instruments: the Career Aspiration Scale (CAS) and the Personality Types Questionnaire (PTQ), both assessed for internal consistency reliability with Cronbach's Alpha coefficients of 0.891 for CAS and 0.942 for PTQ. The PTQ subclusters exhibited reliability coefficients of 0.891 for Realistic, 0.928 for Investigative, and 0.721 for Artistic types. Questionnaires were administered via direct delivery method, and data were analyzed using the Statistical Package for Social Sciences (SPSS). Simple linear regression was employed to address the research questions and hypotheses. Key findings highlighted the significant predictive role of the Investigative personality type in students' career aspirations for achievement. The study recommends the implementation of comprehensive, tailored career guidance programs in secondary schools that encompass not only personality assessments but also academic strengths, interests, values, and socio-economic backgrounds. Such personalized approaches can better support students in exploring diverse career paths and making well-informed decisions.

Keywords: Personality type, realistic, investigative, Artistic, educational, career aspiration, students

Introduction

The career choices of students represent a critical juncture in their lives, and have the potential to profoundly influence their future personal and professional development. For senior secondary school students, the selection of a career path is a complex decision-making process shaped by a myriad of factors, including socio-economic status, educational background, cultural influences, and individual personality types. In Anambra State, Nigeria, understanding the relationship between personality types and career decision-making is particularly pertinent, given the region's diverse cultural and socio-economic landscape.

Making educational career decisions can be a crucial task for students, beginning in secondary school and continuing throughout their lives. The process is significant because the choice of a career guides and shapes students' futures. As Nwokolo and Nwanna (2021) observed, career aspiration is not a single event but a continuous process that involves a series of decisions over time. It goes beyond simply matching an occupation with a person's interests, as the process is far more demanding and complex. A career is defined by specific characteristics that make it a form of work. According to Chemeli (2013), these characteristics create the right environment for effective career counselling and guidance.

Generally, the term "career" in career counselling is viewed as an occupation or profession that usually requires special training or formal education and is considered a person's life work. It is seen as a sequence of related jobs, often pursued within a specific industry or sector (Hooley, Marriott, Watts, & Coiffait, 2014). Choosing a career involves more than just selecting an occupation. It forms the foundation for one's evolving career aspirations. Career aspirations are the desires and goals that students have regarding their future work life. These aspirations guide their educational and professional paths and help shape their future success in the workforce. Pam (2013) defines career aspiration as the selection of a vocation based on factors such as ability, parental influence, career counselling, and part-time jobs. Phifer (2014) describes it as the sum of decisions that direct an individual's educational, social, economic, political, and spiritual efforts, reflecting their unique personality characteristics and core values. Career aspirations involve more than choosing an occupation, as this choice forms the basis from which one's career evolves. It is a process that helps individuals develop and accept their perceived roles in the world of work, aligning these roles with reality and what brings them satisfaction. In this study, career aspirations are defined as the desires, dreams, and career thoughts (expressed or unexpressed) of secondary school students that influence their future studies and work engagements.

Career aspirations relate to various aspects of an individual's life, learning, and work, helping to understand how students aim to achieve their career goals and how these aspirations may change over time (Nwokolo & Nwanna, 2021). When these aspirations are channelled towards future success in education, is referred to as educational aspiration. Educational aspirations refer to the desire to continue education or training. This aspect gauges the degree to which individuals pursue career-related goals, including leadership and promotions, training and managing others, and further education. They also describe internal attitudes toward work or career. Therefore, career aspirations and their facets play important roles in shaping students' career patterns.

The career choices of students are profoundly shaped by societal beliefs

and conceptions about gender roles, often overshadowing their individual potentials, interests, values, and special abilities. Ott-Holland, Huang, Ryan, Elizondo, and Wadlington (2013) highlighted this phenomenon, pointing out that career patterns are largely dictated by what is traditionally seen as appropriate for men and women, rather than by the unique attributes and capabilities of each student. Moreover, the career aspirations of students are significantly influenced by the opinions and attitudes of family members, teachers, relatives, and peers. This social context often exerts a powerful force, sometimes leading students to prioritize external opinions over their own interests and aptitudes. As observed by Alkhelil (2016), few students consider their interests, personality, and aptitudes when making career decisions. Instead, many choose careers based on the influence of peers and teachers, the financial capabilities of their parents, or without any clear rationale.

Personality types play a crucial role in this dynamic, as they can provide insights into the natural inclinations and preferences of students, which are essential for making informed career choices. Understanding one's personality type can help align career paths with personal strengths and interests, promoting greater satisfaction and success in their professional lives. Holland's theory posits that people are more satisfied and successful in their careers when their job environments match their personality types. The six personality types identified by Holland are Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (RIASEC). For instance, a person with an Artistic personality type would thrive in creative fields, while a social personality type might excel in roles involving interaction and helping others.

Holland's typology offers a valuable framework for understanding how different personality types are naturally drawn to specific careers. By aligning personal preferences and strengths with compatible job environments, individuals are more likely to experience satisfaction and success in their professional lives. As Holland (1997 noted, Realistic individuals benefit from careers that make use of their practical skills and preference for hands-on activities. They thrive in structured environments that require technical expertise, although they may struggle in roles that are highly social or abstract.

Investigative individuals are well-suited for careers that challenge their intellect and curiosity. Their ability to think abstractly and solve complex problems makes them ideal for research and analytical roles. However, they may find routine or unchallenging tasks unfulfilling (Holland, 1997). Artistic individuals flourish in careers that allow for creativity and self-expression. They need environments that offer freedom and aesthetic appeal. Structured or highly repetitive tasks can stifle their creativity and lead to dissatisfaction (Holland, 1997). Understanding these personality types enables educators and career counsellors to guide students

toward career paths that align with their inherent traits and preferences, ultimately fostering a more fulfilling and successful professional life.

Research indicates that secondary school students typically feel insecure about career decision-making without proper guidance (Jamali, Araqi, & Kalantarkousheh, 2015; Nwokolo & Nwanna, 2021; Ogutu, Odera, & Maragia, 2017). Understanding the role of personality type variables in shaping students' educational and career aspirations is crucial. According to Smith (2011), personality development is believed to precede and potentially contribute to the formation of identity and interests. Consequently, studies on personality and personality types, such as those by Chemeli (2013), Onoyase and Onoyase (2009), Ehigbor and Akinlosotu (2016) have sought to broaden ones understanding of career aspirations by providing insights into individual differences and clarifying relationships. Despite the extensive literature on career counselling and related issues, there is a notable lack of empirical studies exploring the contributions of variables like personality types variables to the career aspirations of secondary school students. This study aims to fill this gap by investigating how personality type variables predict the career aspirations of secondary school students in Anambra State, Nigeria.

Statement of the Problem

Educational career aspirations among senior secondary school students are crucial predictors of their future academic and professional success. In Anambra State, Nigeria, where educational outcomes significantly influence socio-economic mobility, it is essential to understand the factors that shape these aspirations. Despite numerous studies on career aspirations and educational outcomes, there is a paucity of research focusing on the role of personality type variables in this context.

Personality traits such as openness, conscientiousness, extraversion, agreeableness, and neuroticism have been shown to influence various life outcomes, including academic performance and career choices. However, there is limited empirical evidence on how these personality traits specifically affect the educational career aspirations of senior secondary school students in Anambra State. This gap in the literature calls for a comprehensive examination of the relationship between personality types and educational aspirations. Thus, the central problem this study seeks to address is: How do personality type variables shape the educational career aspirations of senior secondary school students in Anambra State, Nigeria? By investigating this question, the study aims to fill a critical gap in the existing literature and provide valuable insights for educators, policymakers, and counsellors working to support students' educational and career development.

Purpose of the Study

The main purpose of the study is to investigate the role of personality type

variables (Realistic, Investigative and Artistic personality types), in shaping the educational career aspirations of senior secondary school students in Anambra State. Specifically, the study seeks to examine:

1. To examine the influence of realistic personality types on the educational career aspirations of senior secondary school students in Anambra State.
2. To analyse how investigative personality types predict the educational career aspirations of senior secondary school students in Anambra State.
3. To assess the role of artistic personality types in shaping the educational career aspirations of senior secondary school students in Anambra State.

Research Questions

The study will be guided by the following research questions:

1. How do realistic personality types influence the choice of educational careers among senior secondary school students in Anambra State?
2. How do investigative personality types predict the educational career aspirations of senior secondary school students in Anambra State?
3. What is the role of artistic personality types in determining the educational career aspirations of senior secondary school students in Anambra State?

Null Hypotheses

The following null hypotheses will be test at 0.-5 level of significance:

H_{01}: Realistic personality types do not significantly influence the choice of educational careers among senior secondary school students in Anambra State.

H_{02}: Investigative personality types do not significantly predict the educational career aspirations of senior secondary school students in Anambra State.

H_{03}: Artistic personality types do not significantly determine the educational career aspirations of senior secondary school students in Anambra State.

Materials and Methods

Research Design

The study was conducted using a correlational research design, which is appropriate for examining the relationships between variables. This design was chosen to investigate the contributions of realistic and investigative and artistic personality types on the educational career aspirations of secondary school students in Anambra State, Nigeria. By employing a correlational design, the study will analyze data to see if students with specific personality types (realistic, investigative and artistic) predict students' preference for certain educational career paths and how strongly these preferences are related.

Research Setting

The study was conducted in Anambra State, situated in the South East Geo-Political Zone of Nigeria. This region is known for its rich cultural heritage and educational institutions. However, like many other regions, Anambra State faces challenges

regarding students' career decision-making processes in secondary schools. A significant number of secondary school students in Anambra State appear to struggle with choosing a career path. This challenge can be attributed to various factors, including limited access to career guidance and counselling, societal and familial expectations, and a lack of exposure to diverse career options. In many cases, students may not have sufficient information about the potential career paths that align with their interests and personality types.

The choice of conducting this study in Anambra State is particularly relevant because it aims to address a critical gap in the educational development of the region. By investigating how personality types influence career aspirations, the study seeks to provide insights that can help educators, counsellors, and policymakers develop targeted interventions to support students in their career decision-making process.

Participants

The sample for the study consisted of 2,700 SS1 and SS2 students from public secondary schools in Anambra State. These students were selected from a total population of 32,450 students using a multi-stage sampling approach, which is a comprehensive and systematic method for ensuring a representative sample. The first stage involved stratifying the population of students into distinct groups based on relevant criteria, such as educational zones within Anambra State. Stratification helps ensure that different segments of the population are adequately represented in the sample. Within each stratum, clusters were selected randomly. Within the selected clusters, individual students were randomly chosen to participate in the study. This step ensures that every student within the chosen clusters has an equal chance of being included, minimizing selection bias.

Instrument for Data Collection

In this study, two research instruments were utilized to gather data from married school teachers: the Achievement Career Aspiration Scale (ACAS) and the Personality Types Questionnaire (PTQ). Each tool played a specific role in assessing the variables of interest.

Achievement Career Aspiration Scale (ACAS): The ACAS was originally developed by Gregor and O'Brien in 2015. For this study, it was adapted to suit the context of secondary school students in Anambra State. Adaptation included scaling to better align with the local educational and cultural environment. The ACAS consists of eight items that measure students' aspirations within the achievement domain. These items likely address various aspects of career aspirations, such as: Academic goals and ambitions, career-related achievements, motivation and commitment to achieving career goals and perceived importance of career success. High scores on the scale would indicate strong aspirations towards achieving significant career milestones, while lower scores might suggest uncertainty or lower ambition in career planning.

Personality Types Questionnaire (PTQ): The PTQ is used to assess the personality types of the students. This tool is crucial in identifying the realistic, investigative, and artistic personality types among the

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.14 (2), January-April, 2025 https://ajemates.org

students, which are the primary focus of this study. It generally includes a series of items designed to categorize individuals into different personality types based on their traits, behaviours, and preferences. The PTQ draws from Holland's Theory of Career Choice, which includes realistic, investigative, and artistic types among others.

Data Collection and Analysis

The two test instruments were directly distributed to all study participants for administration. After collecting the data, it was analyzed using the Statistical Package for the Social Sciences (SPSS), a comprehensive software tool for statistical analysis. To address the research questions and test the null hypotheses, linear regression analysis was applied. This method allowed the researchers to examine the relationships between the variables, specifically how personality types predict career aspirations among the students.

Results

In this section, the data collected from the field for this study were analysed and the summaries presented in tables to highlight the findings as follows:

Research Question 1: How do realistic personality types influence the choice of educational careers among senior secondary school students in Anambra State?

H_{01}: Realistic personality types do not significantly influence the choice of educational careers among senior secondary school students in Anambra State.

Table 1: Regression analysis on personality types prediction of educational career aspiration of secondary school students in Anambra state

Source of Variation	R	R Square	Adjusted R Square	%
Personality types	0.041	0.002	0.001	0.7

Coefficients Model	Unstandardized Coefficients		Standardized Coefficients	t	P<0.05	Remark
	B	Std. Error	Beta			
(Constant)	21.038	.842		24.998	.000	
Realistic	.008	.021	.007	.370	.711	NS

Table 1 indicated that the realistic personality type has a Beta value of 0.007. This means that the realistic personality type predicts only 0.7% of the educational career aspirations of the students. Additionally, with 2681 degrees of freedom (df) and at a 0.05 level of significance, the calculated t-value is 0.370 with a p-value of 0.711, which is greater than 0.05. As a result, the null hypothesis is accepted, indicating that the realistic personality type of secondary school students is not a significant predictor of their educational career aspirations.

Research Question 2: How do investigative personality types predict the educational career aspirations of senior

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.14 (2), January-April, 2025 https://ajemates.org

secondary school students in Anambra State?

H_{02}: Investigative personality types do not significantly predict the educational career aspirations of senior secondary school students in Anambra State.

Table 2: Regression analysis on personality types prediction of educational career aspiration of secondary school students in Anambra state

Source of Variation	R	R Square	Adjusted R Square	%
Personality types	0.041	0.002	0.001	2.0

Coefficients Model	Unstandardized Coefficients		Standardized Coefficients	t	P<0.05	Remark
	B	Std. Error	Beta			
(Constant)	21.038	.842		24.998	.000	
Investigative	.021	.021	.020	1.041	.298	NS

In Table 2, it was observed that the investigative personality type has a Beta value of 0.020. This indicates that the investigative personality type predicts 2.0% of the educational career aspirations of the students. Additionally, with 2681 degrees of freedom (df) and at a 0.05 level of significance, the calculated t-value is 1.041 with a p-value of 0.298, which is greater than 0.05. Consequently, the null hypothesis is not rejected, indicating that the investigative personality type of secondary school students is not a significant predictor of their educational career aspirations.

Research Question 3: What is the role of artistic personality types in determining the educational career aspirations of senior secondary school students in Anambra State?

H_{03}: Artistic personality types do not significantly determine the educational career aspirations of senior secondary school students in Anambra State.

Table 3: Regression analysis on personality types prediction of educational career aspiration of secondary school students in Anambra state

Source of Variation	R	R Square	Adjusted R Square	%
Personality types	0.041	0.002	0.001	0.1

Coefficients Model	Unstandardized Coefficients		Standardized Coefficients	t	P<0.05	Remark
	B	Std. Error	Beta			
(Constant)	21.038	.842		24.998	.000	
Artistic	.030	.021	.028	1.417	.157	NS

Table 3 revealed that the artistic personality type has a Beta value of 0.028. This indicates that the artistic personality type predicts 2.8% of the educational career aspirations of the students. Additionally, with 2681 degrees of freedom (df) and at a 0.05 level of significance, the calculated t-value is 1.417 with a p-value of 0.157, which is greater than 0.05. As a result, the null hypothesis is not rejected, indicating that the artistic personality type of secondary school students is not a significant predictor of their educational career aspirations.

Discussion

The study found that the realistic personality type predicts only 0.7% of the educational career aspirations of secondary school students. Consequently, the null hypothesis is accepted, suggesting that the realistic personality type is not a significant predictor of educational career aspirations among these students. The study indicates that realistic personality types have almost no impact on the educational career aspirations of the students. This suggests that factors other than personality type are more influential in shaping these aspirations. The high p-value implies that there is no statistically significant relationship between realistic personality types and educational career aspirations. Therefore, any observed relationship in the sample is likely due to random chance rather than a true effect.

The current findings align with Al-Bahrani, Allawati, Abu Shindi, and Bakkar (2020) in suggesting that certain groups of students may not have strong career aspirations. However, while Al-Bahrani et al. focused on achievement levels, the current study highlights the limited role of realistic personality types in influencing aspirations, suggesting other underlying factors may be at play. The current findings also align with Chemeli (2010) results, as both suggest that personality types, particularly realistic ones, do not positively influence career aspirations. In fact, Chemeli's identification of a negative relationship supports the notion that personality types may not drive career aspirations significantly. However, the finding of George, Anyaegbunam, Azuh, Chine, and Omonijo (2015) contrasts with the current study. While George et al. demonstrated a significant relationship between personality types and work-study participation, the current study found no significant relationship between realistic personality types and educational career aspirations. This discrepancy could be due to differences in the dependent variables studied (work-study participation vs. career aspirations) or contextual factors specific to the study populations.

Furthermore, the study found that the investigative personality type predicts only 2.0% of the educational career aspirations of secondary school students. Consequently, the null hypothesis is not rejected, indicating that the investigative personality type is not a significant predictor of educational career aspirations among these students. The findings of Al-Bahrani, Allawati, Abu Shindi, and Bakkar (2020) align somewhat with the current study in suggesting that career aspirations are generally low among students. However, their study did not specifically address the role of investigative personality types, making direct comparison challenging.

The current findings contrast with Onoyase and Onoyase (2009) results. While their study identified a significant relationship between investigative personality types and career aspirations, the present study found no such significant relationship. This discrepancy could be due to differences in study populations, methodologies, or contextual factors. Similarly, Chemeli (2010) findings support the notion of a relationship between personality types and career aspirations, which contrasts with the current study's conclusion that investigative personality type is not a significant predictor. This difference might be attributed to variations in educational systems, cultural contexts, or sample characteristics.

The findings of the study yielded significant insights. It was revealed that the artistic personality type predicts a mere 2.8% of these aspirations, suggesting a minimal role in shaping students' career ambitions. Moreover, the study concluded that the artistic personality type is not a statistically significant predictor of educational career aspirations among these students. This finding aligns with previous research by Pahwa (2015), who also noted that personality types may not consistently predict career aspirations across diverse contexts. Pahwa's study, which examined leadership aspirations and career satisfaction among managers and executives, found no significant correlation between personality types and career outcomes. This underscores the variability in how personality traits influence career aspirations, depending on the specific context and population under study.

Similarly, the findings of Soraya, Elaheh, and Gholamal (2011) reinforce the notion that personality types, including artistic traits, may not universally influence career aspirations across different academic and cultural settings. Their study, which focused on students' achievement motivation in secondary schools, found no significant relationship between personality types and academic aspirations. This parallel supports the current finding that while personality types like artistic traits may play a role in some individuals' career choices, their impact may be limited or non-significant in broader situations.

Conclusion

In conclusion, while the realistic, investigative and artistic personality type may contribute marginally to educational career aspirations among secondary school students, its overall predictive power appears limited. This highlights the complexity of career development and the need for distinct approaches that consider a range of influencing factors in educational and career counselling settings. Also, personality types, while influential in some settings, may not universally predict career aspirations and should be considered alongside other influential factors.

Implications

These insights have significant implications for educational counseling and career guidance practices. Educators and counselors should consider a holistic approach that incorporates various factors beyond personality traits when helping students explore and pursue their career aspirations. Factors such as academic

performance, personal interests, socio-economic background, and cultural influences should all be taken into account to provide comprehensive support to students in their career planning journeys.

The findings suggest that educational and career guidance for students should not overly rely on personality type assessments, particularly for realistic and investigative personality types. Instead, a more comprehensive approach considering various factors (e.g., interests, academic performance, and socio-economic background) might be more effective.

Additional research could explore other potential predictors of educational career aspirations, such as socio-economic status, parental influence, or school resources, to better understand what drives students' career aspirations.

Educators and policymakers should be cautious in placing too much emphasis on personality type when designing career guidance programs. Instead, they should adopt a holistic approach that addresses a range of influencing factors to better support students in their career planning.

Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. Schools should implement comprehensive and tailored career guidance programs in secondary schools that go beyond personality assessments. These programs should incorporate assessments of students' academic strengths, interests, values, and socio-economic backgrounds. By providing personalized guidance, schools can better assist students in exploring various career options and making informed decisions.
2. Schools should promote exposure to diverse career paths by increasing opportunities for students to explore diverse career paths through mentorship programs, career fairs, and practical experiences such as internships and job shadowing. Exposure to different professions can help students understand the requirements and opportunities in various fields, allowing them to align their aspirations with realistic career goals.
3. The school guidance counsellors should engage parents, guardians, and community stakeholders in the career development process of students. Provide workshops and informational sessions to educate parents about the importance of supporting their children's career aspirations. When parents understand and actively participate in their children's career development, they can provide valuable encouragement and guidance based on their knowledge of the student's strengths and interests. Collaboration with local businesses and industries can also provide insights into current workforce demands, helping to align educational efforts with market needs.

REFERENCES

Al-Bahrani, M.A,, Allawati, S.M., Abu Shindi, Y.A. and Bakkar, S.B. (2020). Career aspiration and related contextual variables, *International Journal of Adolescence and Youth, 25*, 1, 703-711, DOI: 10.1080/02673843.2020.17302 01

Alkhelil, A.H. (2016). The relationship between personality traits and career aspiration: A case study of secondary school students. *International Journal of Academic Research in Progressive Education and Development, 5(2),* 139- 152.

Chemeli, S.P. (2010). The relationship between students' personality types and career aspirations among secondary school students in Eldoret west district. Retrieved from URI: http://ir.mu.ac.ke:8080/xmlui/handle/123456789/

Chemeli, S.P. (2013). An assessment of the relationship between students' personality types and career aspirations in Eldoret West District, Kenya. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS) 4(2),* 383-391. Retrieved from: jeteraps.scholarlinkresearch.org

Ehigbor, B. O., and Akinlosotu, T. N. (2016). Parents' occupation as correlate of students' career aspiration in public secondary schools in Ekpoma Metropolis, *International Journal of Arts and Humanities (IJAH), 5(3*

George, T., Anyaegbunam, M., Azuh, D., Chine, B., and Omonijo, D. (2015). Influence of Personality Types and Socio-Demographic Characteristics of Work-Study Students at a Private University, Southwest Nigeria. *Mediterranean Journal of Social Sciences, 6*(6 S4), 452. Retrieved from https://www.mcser.org/journal/index.php/mjss/article/view/8317

Holland, J. L. (1973). *Making vocational choices*. Englewood Cliffs, NJ: Prentice-Hall.

Hooley, T., Marriott, J., Watts, A.G. and Coiffait, L. (2014). *Careers 2020: options for future careers work in English schools archived, at the wayback machine*. London: Pearson.

Jamali, Y.,Araqi, V. and Kalantarkousheh, S.M. (2015). Function of dysfunctional career thoughts, procrastination and career indecision among AllamehTabatab'i university students. *European Journal of Natural and Social Sciences, 4*(1), 57-65.

Nwokolo, C. & Nwanna, U.C. (2021). Does self-efficacy have a relationship with career aspiration? a study among secondary school students in Anambra State. *Journal of Education, Society and Behavioural Science, 34*(12), 155-161. DOI: 10.9734/JESBS/2021/v34i1230392

Ogutu, J.P., Odera, P. and Maragia, S.N. (2017).Self-efficacy as a predictor of career decision making among secondary school students in Busia County, Kenya. *Journal of Education and Practice, 8*(11), 20-29.

Onoyase, D. and Onoyase, A. (2009). The relationship between personality types and career aspiration of secondary school students in Federal Government Colleges in Nigeria, *Anthropologist*, *11*(2), 109-115.

Ott-Holland, C. J., Huang, J. L., Ryan, A. M., Elizondo, F. and Wadlington, P. L. (2013). Culture and vocational interests: The moderating role of collectivism and gender egalitarianism. *Journal of Counselling Psychology*, *60*(4), 569–581.doi:10.1037/a0033587. PMID 239577

Pahwa, K. (2015). An investigation of key personality traits of managers and executives. " PhD diss., University of Tennessee. https://trace.tennessee.edu/utk_graddiss/3452

Pam, M.S. (2013). "Career aspiration," in *PsychologyDictionary.org*. Retrieved from https://psychologydictionary.org/career-choice-2/.

Phifer, P. (2014) *College Majors and Careers, Fifth Edition*. New York, NY: Ferguson Publication.

Smith, R. M. (2011). *Personality Traits and Career Decidedness: An Empirical Study of University Students* (PhD Dissertation, University of Tennessee). Retrieved from http://trace.tennessee.edu/utk_graddiss/

Soraya, H. Elaheh, H., and Gholamali, M.L. (2011). The relationships between personality types and students. *Procedia-Social and Behavioral Sciences, 29, 836–845*. Retrieved from https://pdf.sciencedirectassets.com