



## CAREER ASPIRATION AS CORRELATES OF ACADEMIC ACHIEVEMENT IN COMPUTER STUDIES AMONG SECONDARY SCHOOL STUDENTS IN ONITSHA EDUCATION ZONE, ANAMBRA STATE

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### ABSTRACT

*The study examined career aspiration as correlates of academic achievement in Computer Studies among secondary school students in Onitsha Education Zone of Anambra State was investigated. Three research questions guided the study and three null hypotheses were tested at 0.05 level of significance. The study adopted a correlational survey research design. The population comprised 4,106 senior secondary two (SS2) students offering Computer Studies were drawn from 26 public secondary schools in the zone. Multi-stage sampling was used to draw a sample of 360 students from 12 co-educational public secondary schools. A researcher-developed instrument, the Scale for Students' Career Aspiration in Computer-related Fields (SSCACF), was used alongside the Computer Studies Achievement Test (CSAT) for data collection. The instruments were validated by three experts, and their reliability indices, established using Cronbach's Alpha (SSCACF = 0.892) and Kuder-Richardson Formula 20 (CSAT = 0.71), confirmed their suitability for the study. Data were analysed using Pearson Product Moment Correlation. Findings revealed a moderate positive and significant relationship between students' career aspiration and academic achievement in Computer Studies ( $r = 0.588$ ). A moderate positive and significant relationship was also found for male students ( $r = 0.653$ ) and for female students ( $r = 0.528$ ). Based on the findings, the study concluded that career aspiration is an important motivational factor associated with students' academic achievement in Computer Studies irrespective of gender. It was recommended, among others, that school counsellors should intensify career guidance programmes and that curriculum planners should design a Computer Studies curriculum that clearly links classroom learning to real career pathways in technology-related fields.*

**Keywords:** Career Aspiration, Academic Achievement, Computer Studies, Gender

### Introduction

Computer studies equips secondary school students with the digital literacy, computational thinking and problem-solving competencies required for effective participation in a knowledge-driven and technology-oriented society. Solomon and Ehiemere (2025) posited that as technology continues to influence every aspect of modern life, computer studies has become an essential component of education, providing students with foundational skills for engaging with digital technologies such as programming, data management and networking. According to Nannim,



Ibezim, Oguguo and Nwangwu (2024), the subject encourages problem-solving, logical reasoning and computational thinking, valuable skills that prepare students for careers in technology-related fields. Given this significance, students' academic achievement in Computer Studies serves as an important indicator of their preparedness for participation in a digital economy.

Despite the recognized importance of the subject, evidence indicates a persistent pattern of fluctuation in students' academic achievement in Computer Studies. Statistics released by the West African Examinations Council indicate that the proportion of candidates obtaining credit passes (A1-C6) in the West African Senior School Certificate Examination increased from 49.54% in 2018 to 57.65% in 2020, but declined to 53.09% in 2021 before rising slightly to 56.36% in 2022 (WAEC, 2018-2022). While inadequate infrastructure and shortage of qualified teachers have been identified as contributing factors (Ademola-Popoola and Adesina, 2025), students exposed to similar learning conditions often demonstrate different levels of achievement, suggesting that psychological and motivational factors, particularly students' career aspiration, may also play an important role in shaping learning outcomes.

Career aspiration can be defined as an individual's ambition or desire to achieve certain professional goals, shaped by personal interests and the pursuit of success in a specific career path (Sapra, Chaudhary and Jeswal, 2021). According to Struck (2024), career aspirations are part of a person's vocational identity, representing an idealized version of one's future career that influences educational choices and goal-setting behaviours. Similarly, Arigbabu, Olaniyi and Adebajo (2024) describe career aspirations as the goals that guide a person's career development, directly impacting career choices and long-term professional success by influencing motivation and effort towards achieving those goals. When students do not perceive Computer Studies as a means of achieving their career goals, they are less likely to engage meaningfully with the subject, which may translate into poorer academic achievement.

Students who have clear goals related to technology or computer-based professions are more likely to view their academic effort as a stepping-stone toward their future ambitions, which may encourage greater commitment, focus and persistence in learning (Sapra, Chaudhary and Jeswal, 2021). Conversely, students without well-defined career aspirations may not appreciate the immediate relevance of Computer Studies, which could reduce their level of involvement and, consequently, their achievement in the subject (Knepp and Knepp, 2022). Alshahrani, Ross and Wood (2018) noted that without a clear understanding of how Computer Studies can open doors to career opportunities in technology, students may view the subject as unimportant or too difficult, a perception often rooted in limited exposure to the range of career pathways available in computing and related fields.

Beyond the general influence of career aspiration, gender remains a factor of interest in understanding how students relate their future ambitions to present academic effort, as societal expectations about gender-appropriate careers can shape students' interest in technology-related subjects and, in turn, their career aspirations (Adigun, Onihunwa, Irunokhai, Sada and Adesina, 2015). Such gendered patterns have been linked to disparities in participation and achievement in



Science, Technology, Engineering and Mathematics (STEM) related fields (Siregar, Warsito, Gumilar, Amarullah and Rosli, 2024). Although previous studies have examined career aspiration as a predictor of academic achievement in various educational contexts, there is limited empirical evidence on its relationship with academic achievement in Computer Studies, and on whether this relationship differs by gender, particularly among secondary school students in Onitsha Education Zone of Anambra State. It is against this backdrop that this study sought to determine career aspiration as correlate of academic achievement in Computer Studies among secondary school students in Onitsha Education Zone. Specifically, the study sought to determine the:

1. Relationship between students' career aspiration and their academic achievement in Computer Studies.
2. Relationship between male students' career aspiration and their academic achievement in Computer Studies.
3. The relationship between female students' career aspiration and their academic achievement in Computer Studies.

### **Research Questions**

The following research questions guided the study:

1. What is the relationship between students' career aspiration and their academic achievement in Computer Studies?
2. What is the relationship between male students' career aspiration and their academic achievement in Computer Studies?
3. What is the relationship between female students' career aspiration and their academic achievement in Computer Studies?

### **Hypotheses**

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant relationship between students' career aspiration and their academic achievement in Computer Studies.
2. There is no significant relationship between male students' career aspiration and their academic achievement in Computer Studies.
3. There is no significant relationship between female students' career aspiration and their academic achievement in Computer Studies.

### **Methodology**

The study adopted a correlational survey research design, which according to Nworgu (2015) is a quantitative research framework used to determine the nature and degree of relationship between two or more variables without manipulating them. The study was carried out in Onitsha Education Zone, one of the six education zones in Anambra State, comprising Onitsha North, Onitsha South and Ogbaru Local Government Areas. The population of the study comprised 4,106 (1,615 male and 2,491 female) senior secondary two (SS2) students offering Computer Studies in 26 public secondary schools in the zone during the 2024/2025 academic session. A sample of 360 SS2 students was drawn from 12 co-educational public secondary schools using a multi-stage sampling procedure involving stratified sampling (to group schools by Local Government Area), purposive



sampling (to select co-educational public schools) and simple random sampling through balloting without replacement (to select 30 students from each sampled school).

Data were collected using the Scale for Students' Career Aspiration in Computer-related Fields (SSCACF), a researcher-developed instrument rated on a four-point Likert scale of Strongly Agree (4) to Strongly Disagree (1), covering students' interest in computer-related professions, exposure to ICT opportunities, family influence and perceived usefulness of technology careers, and the Computer Studies Achievement Test (CSAT), a 50-item multiple-choice test adapted from WAEC past questions covering hardware, software, data processing, programming, networks and internet concepts. The instruments were validated by three experts from the Faculty of Education, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria, and all corrections were incorporated into the final draft. Using Cronbach's Alpha, a reliability coefficient of 0.892 was obtained for the SSCACF, while the Kuder-Richardson Formula 20 (KR-20) yielded a reliability coefficient of 0.71 for the CSAT, following a trial testing on 30 students from a school outside the study area. Data were collected through direct delivery of the instruments to the respondents by the researcher with the assistance of five research assistants, and 100 percent of the 360 copies administered were completed and returned. Data collected were analysed using Pearson Product Moment Correlation (PPMC) to answer the three research questions and to test the corresponding hypotheses. The strength of relationships was interpreted using the guideline proposed by Okoye (2015), where  $r = 0.00$  indicates no relationship;  $r = \pm 0.01$  to  $\pm 0.20$ , low relationship;  $r = \pm 0.21$  to  $\pm 0.49$ , weak relationship;  $r = \pm 0.50$  to  $\pm 0.69$ , moderate relationship;  $r = \pm 0.70$  to  $\pm 0.99$ , high relationship; and  $r = \pm 1.00$ , perfect relationship. For hypothesis testing, the null hypothesis was rejected when  $p \leq 0.05$  and retained when  $p > 0.05$ . Analysis was carried out using the Statistical Package for Social Sciences (SPSS) version 27.

## **Result Presentation**

### **Research Question 1: What is the relationship between students' career aspiration and their academic achievement in Computer Studies?**

**Table 1: Pearson r on the relationship between students' career aspiration and academic achievement in computer studies**

| <b>Variables</b>                                    | <b>N</b> | <b>r</b> | <b>p-value</b> | <b>Remark</b>                     |
|-----------------------------------------------------|----------|----------|----------------|-----------------------------------|
| Students' Career Aspiration<br>Academic Achievement | 360      | .588     | 0.000          | Moderate Positive<br>Relationship |

The result in Table 1 shows a moderate positive relationship between students' career aspiration and academic achievement in Computer Studies, with a correlation coefficient of  $r = 0.588$ , indicating that students with higher career aspirations tend to achieve better academically in Computer Studies.



**Hypothesis One: There is no significant relationship between students' career aspiration and their academic achievement in Computer Studies.**

The result presented in Table 1 also reveals that there is a statistically significant correlation between students' career aspiration and academic achievement in Computer Studies ( $p < 0.01$ ). Since the p-value is less than 0.05, the null hypothesis is rejected; hence, there is a significant relationship between students' career aspiration and academic achievement in Computer Studies.

**Research Question 2: What is the relationship between male students' career aspiration and their academic achievement in Computer Studies?**

**Table 2: Pearson r on the relationship between male students' career aspiration and academic achievement in computer studies**

| Variables                                           | N   | r    | p-value | Remark                            |
|-----------------------------------------------------|-----|------|---------|-----------------------------------|
| Students' Career Aspiration<br>Academic Achievement | 182 | .653 | 0.000   | Moderate Positive<br>Relationship |

The result in Table 2 shows a moderate positive relationship between male students' career aspiration and academic achievement in Computer Studies, with a correlation coefficient of  $r = 0.653$ , indicating that male students with higher career aspirations tend to perform better academically in Computer Studies.

**Hypothesis Two: There is no significant relationship between male students' career aspiration and their academic achievement in Computer Studies.**

The result in Table 2 revealed that there was a significant relationship between male students' career aspiration and academic achievement in Computer Studies, with a p-value of 0.000. Since the p-value is less than the 0.05 level of significance, the null hypothesis is rejected. This implies that male students' career aspiration significantly relates to their academic achievement in Computer Studies.

**Research Question 3: What is the relationship between female students' career aspiration and their academic achievement in Computer Studies?**

**Table 3: Pearson r on the relationship between female students' career aspiration and academic achievement in computer studies**

| Variables                                           | N   | r    | p-value | Remark                            |
|-----------------------------------------------------|-----|------|---------|-----------------------------------|
| Students' Career Aspiration<br>Academic Achievement | 178 | .528 | 0.000   | Moderate Positive<br>Relationship |

The result in Table 3 shows a moderate positive relationship between female students' career aspiration and academic achievement in Computer Studies, with a correlation coefficient of  $r = 0.528$ , indicating that female students with higher career aspirations tend to perform better academically in Computer Studies.



**Hypothesis Three: There is no significant relationship between female students' career aspiration and their academic achievement in Computer Studies.**

The result in Table 3 revealed that there was a significant relationship between female students' career aspiration and academic achievement in Computer Studies, with a p-value of 0.000. Since the p-value is less than the 0.05 level of significance, the null hypothesis is rejected. This implies that female students' career aspiration significantly relates to their academic achievement in Computer Studies.

**Discussion of Findings**

The finding showed a moderate positive relationship between students' career aspiration and academic achievement in Computer Studies, indicating that students with clear and meaningful career goals are more motivated, focused and committed to their studies because they perceive academic success as essential to achieving their future occupational ambitions. This agrees with Rayner and Papakonstantinou (2020), who found that career aspirations significantly influenced the academic achievement of tertiary science students, and with Singh and Sharma (2017) and Khattab (2015), who reported that educational aspirations positively influenced academic achievement among secondary school students. The finding also corroborates Ma, Zhang, Liu, Chen and Wang (2025) and Mwaura (2020), who found that career aspirations predicted academic performance among high school and secondary school students respectively, as well as Le, Tran, Trinh, Nguyen, Nguyen, Vu and Vuong (2019), who reported that occupational aspirations predicted academic achievement among junior secondary school students. Bakotić (2025) and Mhule, Maseko and Dlamini (2024) similarly found significant positive relationships between career aspirations and academic achievement among university and undergraduate students. The consistency of these findings, despite differences in educational level, subject area and geographical location, suggests that career aspiration is a robust motivational construct that consistently enhances students' academic engagement and achievement. The corresponding hypothesis, which revealed a significant relationship, is consistent with these studies, reflecting the general influence of clearly defined career goals on students' commitment to learning.

The findings showed moderate positive relationships between career aspiration and academic achievement for both male and female students, with the relationship somewhat stronger among male students, indicating that students with clear future career goals become more committed and focused toward academic activities irrespective of gender, though the intensity of this motivational effect may vary. This agrees with Gupta (2024) and Abdi (2024), who found that gender influenced career aspirations and their relationship with academic achievement among adolescents, and with Singh and Kumar (2024), who reported that career aspiration significantly related to academic achievement while gender differences existed in both variables. The finding also corroborates Ribeiro, Sunahara, Shahtahmassebi, Perc and Ribeiro (2026) and Berisha (2025), who found that gender influenced career trajectories and STEM career aspirations, with corresponding implications for achievement. This may be attributed to differences in social expectations, perceived career opportunities and occupational stereotypes that shape how strongly male and female students' career aspirations translate into academic effort. Nonetheless, career aspiration



remains a significant motivational factor that enhances academic achievement across gender groups, as confirmed by the corresponding hypotheses for both male and female students.

The findings of this study are supported by the Social Cognitive Career Theory propounded by Lent, Brown and Hackett (2002), which explains career-related behaviour as a function of self-efficacy beliefs, outcome expectations and personal goals. In line with this theory, students who develop clear career aspirations in computer and technology-related fields are more likely to set specific academic goals, persist through learning difficulties and regulate their study behaviour toward outcomes they value. The theory further suggests that career aspirations are shaped by students' confidence in their abilities and their expectations of success, which in turn strengthens their commitment to academic tasks in Computer Studies. This theoretical framework offers a plausible explanation for why students with well-defined career goals, whether male or female, consistently demonstrate higher academic achievement in the subject.

### **Conclusion**

Based on the findings, it was concluded that career aspiration is an important motivational factor associated with students' academic achievement in Computer Studies among secondary school students in Onitsha Education Zone. Students who are inspired by clear and meaningful career goals in computer and technology-related fields are more likely to remain focused, committed and persistent in their studies, leading to improved academic achievement, irrespective of gender. As the demand for a digitally competent workforce continues to grow, helping students connect their present learning in Computer Studies to their future career pathways remains essential for enhancing academic achievement and preparing technologically competent citizens for national development.

### **Recommendations**

Based on the findings of the study, the following recommendations were made:

1. School counsellors should organize regular career guidance activities, seminars and mentorship schemes to help students develop positive and realistic career aspirations in computer and technology-related fields.
2. Curriculum planners should design a Computer Studies curriculum that clearly links classroom learning to real-world career pathways in technology, so that students can readily see the relevance of the subject to their future ambitions.
3. Teachers should incorporate career-related examples, guest talks from technology professionals and exposure to ICT career opportunities into Computer Studies lessons to strengthen students' career aspirations.
4. Parents should encourage and support their children's career interests in computer and technology-related fields by providing moral, academic and technological support at home.



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