



Second cycle students' program choice and their aspired programmes at the tertiary level

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Abstract

The study examined second cycle students' program choice and their aspired programs at the tertiary level. The descriptive design was adopted and used for the study. The data was collected from a sample of 229 respondents using the questionnaire. The data collected was analyzed using frequency and percentages, independent samples t-test and chi-square.

The study revealed that one of the challenges first year students' faced in the choice of academic program at the SHS level was that educational guidance on programs available at the SHS and their respective careers is not often done, gender did not have any influence on students choice of academic program among first year SHS students, and there was a significant positive relationship between students' choice of program at the SHS and the academic programs they aspire to offer at the tertiary level. We therefore, recommended that guidance on academic programs should be put in place to help students make informed choices of programs that would commensurate with students' aspired careers, and role of gender should not be given prominence in such guidance programs.

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Introduction

Academic program choice is the gene and blueprint of one's future (Omosho & Nyarko-Sampson (2012) ^[46]. For this reason, academic program choice defines what people are by way of their profession or what they do for living. Therefore, when it comes to the period for school children to take decisions in this respect, confusions, controversies and dilemmas ensue among students themselves, and between them and their parents and guardians (Amo-Brown, 2017) ^[11]. This important issue did not escape researchers' attention. Research findings for instance, revealed the importance of the choice of program and career success (Jarvis & Keeley, 2003) ^[30]. Schoon (2007) and Schoon and Polek (2011) ^[55] found that students with informed academic program choices achieved better results than those with poor choices. Willcoxson and Wynder (2010) ^[58] are of the view that ambitious career plans are good determinants of higher school achievement because they help students demonstrate greater interest in their coursework. Academic program choice, therefore, occupies a very important place in education. Vaughan and Roberts (2007) ^[57] found that a program choice is a very complex, non-linear pathway which takes many turns over a person's lifetime and, as such, one needs to better understand the role of informed academic program choices in career decisions and what tools might be useful to help manage it. Adeokun and Opoko (2015) ^[4] could not agree more with the forgoing discussion by affirming that students with greater clarity about why they choose their courses and whether the chosen course has a direct pathway to their preferred career have better outcomes in terms of academic performance.

In a related empirical report, Omotosho and Nyarko-Sampson (2012) ^[46] revealed that career aspirations of students were poorly matched with the trends in the labor market.

Contrary to this however, Arhin (2018) ^[13, 27] found a significant relationship between academic program choice and study behaviors of distance learning students. Lopez-Bonilla *et al.* (2012) ^[38] on the other hand, identified that the most common motivations for a course or program completion relate to informed program choice that matches career aspirations and careers of learners. In connection with the aforementioned, Dar (2019) ^[21] reported that 18% of adolescents made informed program choices and 58% made poor choices due to a lack of guidance. This suggests that although a few adolescents are capable of making informed decisions with respect to academic program choices, many others, do not have the capacity to make informed academic choice decisions (Beal & Crockett, 2010) ^[15]. Changes occur in students 'choices of academic programs due to the deceptive effects of social media, family background, socio-economic status, and school factors (Akos, Lambie, Milsom & Gilbert, 2007; Gutman & Schoon, 2012; Sadolikar, 2016; Schoon, 2001) ^[8, 9, 51, 54]. In connection with adolescents in senior high schools who find themselves in academic choice limbos, Patton and Creed (2007) ^[48] on the basis of their findings, recommended the need for adolescent students battling with identity crises to adjust their academic choices from initial fantasy aspirations to tentative, and then final, expectations, as they become increasingly aware of personal and contextual barriers and challenges influencing their academic program choices and future career aspirations. These discussions and some other related ones form the center piece of the current study. The succeeding paragraphs therefore, present related literature on the variables of interest beginning with the context of the study, statement of the problem under investigation and concluded with a discussion of the results.

Context of the Study

In Ghana, the educational system under the Free Compulsory Universal Basic Education (FCUBE) program by the government of Ghana is such that students have to transition to a higher level after a period of study (Addadey, Quansah, Nugba & Ankoma-Sey, 2022) ^[3]. Once an individual enters kindergarten, after a period of two years, the child transitions into the next stage which is primary education and this spans a period of six years after which the individual is catapulted into junior high school (Ministry of Education, 2018) ^[40].

The Junior High School (JHS) program covers a duration of three years after which the students write an external certificate examination- Basic Education Certificate Examination (BECE) to mark the end of their basic education. A month prior to the writing of these examinations, students are granted the opportunity to make a choice of program that they wish to pursue at the senior high school (Ajayi, 2012) ^[7]. The courses on offer at the senior high schools per the new curriculum (Ministry of Education, 2018) ^[40], include: Elective Science, General Arts, Visual Arts, Business, Home Economics, Agriculture and Technical with English Language, Integrated Science, Core Mathematics and Social Studies as core subjects. Embedded in the elective courses are course-specific or related subjects which the students pursue in line with selecting specific programs (Addadey *et al.*, 2022) ^[3]. Between 1990 and 2004, after the introduction of the junior

high school program, the placement of students in schools of their choice was done manually. However, from 2005 till now, the Computerized School Selection and Placement System (CSSPS) has come to replace the manual system of placement to help synchronize the system making it more effective and less stressful for parents and guardians (Anyan, Gyebil, Inkoom & Yeboah, 2013) ^[12].

A key point in the transition process from one grade to the other driving this study was the decisions students have to make with respect to their program choices. There are two key points in Ghana's education system that require students to make their program choice decisions: The final year of JHS education where students are required to choose their programs of interest to be pursued at the Senior High School (SHS) and final year of SHS education where another key decision would have to be taken by the students on programs they would like to pursue at the universities. These two decision points is the focus of this study.

Related Literature

Challenges students Face in Choosing Academic Program

Academic program choices are usually challenging because of the many available careers, the staggering array of jobs, the continual changes in the economy and job market, is a great potential for making mistakes, and the misery that is likely to happen when people get into the wrong jobs as a result of uninformed choices (Collins, 2007) ^[20]. It is evident that many students make wrong choices in their choice of academic programs at the second cycle level because of ignorance, inexperience, peer pressure, advice from friends, parents and teachers, or tags attached to certain program options without adequate knowledge (Salami, 1999) ^[52]. Students as adolescents are challenged with several of these life issues of making choices in their education as well as their everyday endeavor. This could truncate the attainment of their ambitions. It has been established that educational choices made by students are a mirror through which the images of their future careers can be seen and shaped (Amo-Brown, 2017) ^[11]. Most students have very little or no help in the choice of programs while still in School (Ricci & Boccardi, 2010) ^[49]. They are often influenced by the media, peers, and with very little knowledge of what they might primarily be interested in or motivated to do (Avugla, 2011) ^[49]. Most of them may have a level of uncertainty about where to get help on how to choose a program. Since a career is a lifelong plan, students at this level of their education should be assisted to have a clear-cut plan as it will be difficult for them at their age to see things clearly about themselves. Similarly, Long (2005) ^[37] revealed that issues on program choice which most students found to be important encompass the flexibility of the program, academic reputation and prestige reflecting national and international recognition, quality of school infrastructure and services, career opportunities after completion of the program, and the duration for the completion of the program.

There are several identified challenges that are common in the program decision making process among students. Some of the challenges identified include, interests, values and abilities which are perceived as important personal factors in career decision making; direct and vicarious work experience which influence the expected career choice of students (Lent, Singley, Sheu, Schmidt & Schmidt, 2007) ^[36]. Due to these challenges, there is a need for support in practices of exposing students to program exploration activities that would enable

them to clarify their interests, values and abilities concerning the occupational field of their choice.

Financial issues, negative social family influences, role conflicts, difficulties in personal adjustment and ability limitations, impede students' program choices and therefore are reputed as negative influences on the program decision-making process (Hoffmann, Jackson & Smith, 2005) ^[29]. Mau (2003) ^[39] identified lack of confidence, low motivation, no access to education and poverty as challenges to academic program decision-making. Also, family attitudes, perceived lack of ability and educational opportunities have also been found as challenges to academic program decision-making (Punch, Creed & Hyde, 2006) ^[48]. Harren (as cited in Julien, 1999) ^[32] noted that challenges occur when students do not know where to find relevant information on what choice to make, when sources of information are non-existent and inaccurate. According to Ness and Morgan (2003) ^[43], factors that might also contribute to challenges in program decision-making emanate from poor self-concept on one's capabilities, interests, abilities or personality traits.

Finally, Addadey (2020) ^[2] examined the challenges junior high school students face in choosing programs in their transition to senior high schools. The study revealed that fathers, mothers, siblings, and home orientations as the major sources of challenges for students when selecting their SHS tertiary level programs. Also, challenges that students face from the schools included teacher interferences, peer distractions, and academic performance in school.

Choice of academic Program and Gender

Students are generally influenced by social expectations with regard to the type of careers male and females pursue (Amo-Brown, 2017) ^[11]. Kobia-Acquah, Owusu, Akuffo, Koomson and Pascal (2020) ^[34] found that females were twice more than males chose programmes related to pediatric optometry. Similarly, Al-Bahrani, Allawati, Shindi, Bakkar and Alsiyabi (2020) also revealed that females have higher scores on suitable programme choice than their male counterparts. Ferrington, Gray and Gary (2012) ^[23] on the hand found earlier that attitude toward a career is the reason for the vast difference in academic programs chosen by females and males as well as the different ethnic and cultural orientations. However, these orientation impacts students' academic program decision only when they are subjected to them since childhood and throughout development (Christie, Munro & Fisher, 2004) ^[19]. Gottfredson (2014) ^[26] pointed out that learners make their program choices in accordance with their gender type and the prestige of the career comes with their. Kerr and Colangelo (2015) ^[33] in a follow investigation revealed that certain programs which are perceived to be good for females are usually preferred by females, and those perceived to be good for males are usually undertaken by males. Gedde, Budenz, Haft, Tielsch, Lee and Quigley (2015) also reported that women are affected more by family factors when making academic program and career choices, therefore, their choices are based on putting their families first, whereas men chose academic programs and careers in accordance with the prestige attached to them. Kerr and Colangelo (2015) ^[33] explain that males and females have different reasons for following their chosen programs. Their reasons were around factors such as personal ambition and the need to be prominent. In contrast to the foregoing, Fouad and Byars-Winston (2005) ^[24] earlier reported that race, ethnicity and gender do not affect program choice. However,

it is the perception of the opportunity offered by different vocations that influences students' academic program choices.

Relationship between students' choice of program at the SHS and the programs they aspire to offer at the Tertiary Level

Students' abilities to understand the concepts in courses they are taught could have a great impact on their decision regarding which program they will enroll in and commit their efforts to pursuing (Mustapha & Long, 2010 ^[42]; Christie, Munro & Fisher, 2004) ^[19]. In other words, if a person's ability does not match the program, he or she would naturally go for an alternative program that would fit his/her ability. In this case the content of the curriculum and market-driven factors such as availability of job; job prospects, flexibility and opportunities matter (Hagel & Shaw, 2010) ^[28]. In any given endeavor, people take decisions based on critical analysis with regard to the benefits to be derived from such decision. In the same vein, students select program based on what will be derived from it after completion of the program. In a study to find out what influenced the choice of a Master of Business Administration (MBA) program at the university for instance, Bell, Connell, MacPherson, and Rupp (2010) ^[16], discovered that the demand for the MBA program was high, and most respondents believed that the degree would help them in their current career path and progression. Epstein *et al.* (2013) ^[22] also revealed that students chose programs primarily because of external factors such as promotion, salary increase, and better employment.

Gyimah, *et al.* (2018) ^[27] examined factors influencing students' choice of program of study at the College of Distance Education, University of Cape Coast on a sample of 2,324 students at all levels from 63 study centers (those offering education programs) across all regions of Ghana. The study discovered that students' personal interest in a particular program, ambition or aspiration in life, and credibility of the institutional certificate influence their choice of program of study at UCC-CoDE. It was recommended that management of the College of Distance Education and all institutions running distance learning programs should tailor the curriculum of academic programs to meet the interest and aspirations of applicants. In summary, the review has shown that studies are unlimited with regard to issues relating to factors that account for students' choice of program of study in tertiary institution. Suffice it to say that students' personal factors, peer and family influence, curriculum, institutional factors and market-driven factors were the major issues raised in the literature relating to factors that influence students' choice of a program in a tertiary institutions.

Statement of the Problem

In Ghana, students are required to choose the preferred academic programs they will pursue at the Senior High School (SHS) when they are in their final year of Junior High School (Taylor & Buku, 2006) ^[56]. It has been observed that Senior High School (SHS) students in Gomoa East District for the past years select unsuitable courses without adequate guidance (Adinkrah & Ayarkwa, 2020) ^[50]. Though Guidance and Counselling Coordinators occasionally visit some schools to give orientation to students, especially when they are about to choose their schools and programs for SHS which also leads them subsequently to select programs of study at the tertiary level, such orientation periods are

normally very short so students do not normally get adequate information to choose the appropriate programs that suit their career aspirations; hence they are unable to make informed choices in tandem with their aspirations which cause them frustration, psychological or emotional problems due to lack of interest and in some cases lead to behavior problems in the schools. Available evidence suggests that many students in Senior High Schools change the programs they opted to pursue severally (Amo-Brown, 2017) [11]. The trend of changing a chosen program even in the second year has become prevalent and of grave concern to teachers, parents, and students (Amo-Brown, 2017) [11].

The perennial changing of programs coupled with selected courses and associated stress among students give a sign of imminent danger and bleak prospects for the future of the students (Abubakar, 2017) [1]. Failure by students to make the right choices may lead to unhappiness and disapproval from society (Obiyo & Eze, 2015). Students' program success can best be achieved if proper guidance is given in choosing the right course to pursue at the Senior High Schools and tertiary level which are in tandem with students' personality, ability, and intellectual capacities (Pascal, 2014) [47].

In order to avert arbitrary choices of students and offer support to them effectively in their academic pursuits, efforts must be made to identify the challenges they face in the choice of academic programs. This could help school managements plan the formulation of interventions that may guide students in their quest to select academic programs that meet their career aspirations at Senior High Schools and tertiary institutions particularly in the Gomoa East District. The anecdotal information available from the Ghana Education Service (GES) at the Gomoa East District shows that a good number of the SHS students in the district do not have control and clear directions on their program choices and career aspiration paths (Gomoa East Education Directorate, 2020). Our experience of working in the district for the past years witnessed a yearly ritual where students face a lot of frustrations regarding their academic program choices at the university level. Students find themselves in a dilemma as to what kind of program will fit with their future career aspirations particularly at the SHS and the tertiary levels. Therefore, this study sought to establish whether or not there was a statistically significant relationship between students' choice of program at the SHS and the programs they aspire to pursue at the tertiary level

Research Hypothesis

H_0^1 : There is no statistically significant relationship between students' choice of program at the SHS and the programs they aspire to offer at the Tertiary level.

Methodology

Population

The accessible population of the study comprised all 1,144 first-year public Senior High School students in the Gomoa East District of the Central Region, totaling 629 females and 515 males (Gomoa East Education Directorate, 2020). The two public Senior High Schools (Ahmadiyah SHS and Fettehman) with their respective populations are presented in Table 1. Only first-year students were sampled because it is believed that at that level, most students would be able to tell what influenced the choice of their academic programs of study and tell whether they would lead them to their career path related programs at the tertiary levels or not. Table 1

shows the accessible population of the schools that were selected.

Table 1: Accessible population and schools involved

Schools	Accessible Population	Boys	Girls
1. Ahmadiyah SHS	691	311	380
2. Fettehman SHS	453	204	249
Total	1,144	515	629

Source: (Gomoa East Education Directorate, 2021)

Design, Sample and Sampling Procedure

The descriptive design was adopted to guide the data collection, analysis and discussion of the results. The sample for the study was calculated and drawn from 1,144 students using Kumar's (2011) criteria for sample selection which says that between 20 and 50 percent of the population is suitable for a descriptive research study such as this one. Therefore, 20 percent of 1,144 was drawn and used as sample (229) for the study.

Respondents for each school were calculated using the formula: Number of first-year students in a particular school divided by the accessible population of first-year students multiplied by the total study sample. For example, the number of first-year students at fettehman SHS = 453.

The accessible population = 1,144

Selected sample size = 229

Therefore, the sample for Fettehman: $453/1,144 \times 229 = 91$

The sample size of males for Fettehman SHS was also derived as follows:

$$\frac{\text{Accessible population}}{M/F} = \frac{\text{Sample size for Fettehman}}{X}$$

Where M/F stand for accessible males or females.

$$\text{For example: } \frac{1,144}{515} \times \frac{91}{X} = 41$$

Table 2 presents the sample distribution for the selected schools

Table 2: Number of Participants

School	Accessible population	Sample	Boys	Girls
1. Ahmadiyah SHS	691	138	62	76
2. Fettehman SHS	453	91	41	50
Total	1,144	229	103	126

(Fieldwork, 2021)

Based on prepared sampling frames and K^{th} term calculated, the researchers used the systematic sampling technique to select each respondent for the study.

Data Collection Instrument

Students' Choice of Academic Program (SCAP) questionnaire was designed to collect data for the study. The main source of data for the study was primary. The primary data was obtained from the information provided by the SHS first-year students in public SHS in the district. The questionnaire had two subsections (A and B): Section A dealt with responses to the research question on the choice of academic programs of

study and B focused on the challenges students face in selecting academic programs. Apart from the questions in Section A, the rest of the Sections contained questions measured using a four-point unilinear scale. The items were scored as 1; Strongly Disagree (SD), 2; Disagree (D), 3; Agree (A) and 4; Strongly Agree (SA).

Validity and Reliability

To enhance the validity of the study, the questionnaire was given to some two senior experts in Educational Psychology and Measurement and Evaluation in the Department of Education and Psychology for expert assessment. With this both face and content validity were ensured. To clear ambiguities and further refine the research instrument, the questionnaire was pre-tested at the Odorgonno SHS in the Ga South District in Accra. A reliability test was carried out and obtained a .75 reliability coefficient.

Data Collection Procedure and Ethical Issues

Ethical rules were employed in the data collection processes. Prior to the data collection, ethical clearance was sought from the University of Cape Coast's Institutional Review Board (UCCIRB) which was granted and the approval identification number (UCCIRB/CoDE/2021/003), subsequently provided to ensure that our data collection processes did not cause harm and infringe on confidentiality of the respondents. Letters were written to the head teachers and form teachers of the selected schools giving them prior notice through personal contacts three weeks before the data collection. Respondents were given a brief explanation on the questionnaire items and were also assured of confidentiality and anonymity before they answered the questionnaire. For this reason, their names were not required on the questionnaire.

Data Processing and Analysis

The study adopted a descriptive survey design in which only quantitative data analysis was applied. Descriptive and inferential statistical tools were used to analyze the data. Responses to all the closed-ended items in the questionnaire were measured numerically using a unilinear scale.

Two key issues and a hypothesis leading to testing of the overarching hypothesis were determined using frequency and percentages, and independent samples t-test respectively. The main research hypothesis for the study was tested using the chi-square.

Results and Discussion

This section deals with the presentation of results that emanated from the analysis of the main research hypothesis for the study: There is no statistically significant relationship between students' choice of program at the SHS and the programs they aspire to offer at the Tertiary level.

Before the overarching hypothesis was tested, the study first sought to determine three issues bordering on 1. The choices of program SHS first-year students in the Gomoa East District of the Central Region made 2. The challenges first-

year students faced in their choice of program at the SHS level in the Gomoa East District of the Central Region and 3. Whether or not there is a statistically significant gender difference in the choices of program first-year SHS students in the Gomoa East District of the Central Region make.

First Issue: The choice of program of first-year SHS students in the Gomoa East District of the Central Region

The first issue was meant to identify the choice of program SHS first-year students in the Gomoa East District of the Central Region make. Table 3 shows the results from the analysis of data provided by the respondents on the choice of program of first-year SHS students in the Gomoa East District of the Central Region.

Table 3: Choice of Programme of SHS First Year Students

Choice of Programme	Frequency (No)	Percent (%)
Science (S)	25	10.9
Agricultural Science (AS)	4	1.7
Home Economics (HE)	29	12.7
General Arts (GA)	138	60.3
Business (B)	21	9.2
Visual Arts (VA)	12	5.2
Total	229	100.0

Source: Fieldwork (2021)

As shown in Table 3, more than half of the students 138, representing 60.3% have their choice of program to be General Arts. However, a minority (4), representing 1.7% of the respondents had their choice of program to be in Agricultural Science. This result implies that the majority of the students read General Arts at the SHS level.

Discussion of Results on Choice of Program of First-Year SHS Students

The findings of the study showed that the majority of the students were reading General Arts at the SHS level. The results of the study mean that the majority (138) representing 60.3% of the students decided to read General Arts. The study's finding validates some previous research on the fact that most SHS students tend to choose reading programs such as General Arts at the Senior High School level (Sarkodie *et al.*, 2020; Agbo *et al.*, 2015). This finding suggests that most students are more interested in reading subjects such as Economics, Geography, Literature, History, Ghanaian Language, and Christian Religious Studies (CRS) since they perceived Science and Mathematics related subjects or programs to be difficult.

Second Issue: The challenges first-year students face in the choice of their program at the SHS level in the Gomoa East District of the Central Region

The issue was intended to ascertain the challenges first-year students face in their choice of program at the SHS level in the Gomoa East District of the Central Region. Table 4 presents the results of the challenges first-year students face in the choice of program at the SHS level. The data were analyzed using frequency and percentages.

Table 4: Challenges First Year Students face in the Choice of Programme

Statement	SD N (%)	D N (%)	A N (%)	SA N (%)
I do not know the available programs at the SHS	115 (50.2)	33 (14.4)	39 (17.0)	42 (18.3)
I do not know what my interests are.	131 (57.2)	35 (15.3)	43 (18.8)	20 (8.7)
My parents forced the program on me.	171 (74.7)	29 (12.7)	5 (2.2)	24 (10.5)
Educational guidance on programs available at the SHS and their respective careers is not often done in our schools.	51 (22.3)	32 (14.0)	39 (17.0)	107 (46.7)
I don't have the ability to do what I wish to be in future	145 (63.3)	41 (17.9)	18 (7.9)	25 (10.9)
I am not sure what program to do.	140 (61.1)	44 (19.2)	17 (7.4)	28 (12.2)
The school does not give us enough time to decide on the choice of program during the program selection period.	117 (51.1)	24 (10.5)	28 (12.2)	60 (26.2)

Source: Fieldwork (2021)

In Table 4, the majority (171) representing 74.7% of the students strongly disagreed that their parents forced the program on them. This was followed by a disagreement with the statement that students do not have the ability to do what they wish to be in the future ($n = 145$, 63.3%). Also, students strongly disagreed that they are not sure of what program they wanted to do ($n = 140$, 61.1%). Furthermore, students strongly disagreed (131) representing 57.2% that they know what their interests are. Additionally, the majority (117), representing 51.1% of the students strongly disagreed that schools do not give them enough time to decide on the choice of program during the program selection period. Lastly, more than half (115) representing 50.2% of the students strongly disagreed that they do not know the available programs at the SHS.

Discussion of Results on Challenges First-Year Students face in the Choice of Program

The analysis here was intended to unearth the challenges first-year students face in the choice of academic program at the SHS level in the Gomoa East District of the Central Region. The results as indicated in Table 4 shows that 74.7% of the students strongly disagreed that their parents coerced them to choose particular academic programs and the majority (107) among others representing 46.7% of the students strongly agreed that educational guidance on programs available at the SHS and their respective careers is not often done in their schools. This result implies that one of the challenges that first-year students face in the choice of program at the SHS level is that educational guidance on programs available at the SHS and their respective careers is not often done in their schools.

The results of the study are consistent with that of Collins (2007) [20] who observed that students face critical challenges in their choice of programs which normally result in wrong choices and that of Lent *et al.* (2007) who specifically revealed that students actually make their choices, not in line with their interests, values, and abilities which are perceived as important personal factors in career decision making; direct and vicarious work experience which influenced the expected career choice of students. This finding suggests that there is limited educational guidance on programs available at the SHS level. This may also affect their career aspirations since they have not been educated enough to know the kinds of programs available and their corresponding jobs.

Third Issue: Whether or not there is a Statistically significant gender difference in the choice of program of first-year SHS Students in the Gomoa East district of the central region.

The analysis in this section sought to determine gender

differences in terms of the choice of programs first-year SHS students make. Table 5 shows the result on the gender differences in terms of the choice of programs of first-year SHS students. The independent sample t-test was used to analyze the data.

Table 5: Gender Differences in terms of Choice of Programs of first year SHS Students

Gender	N	M	SD	T	df	P
Male	103	5.01	1.32	3.407	227	.655
Female	126	4.47	1.06			

Source: Fieldwork (2021) *Significance level .05

From Table 5, it can be observed that there is a difference ($M = 5.01$, $SD = 1.32$; $M = 4.47$, $SD = 1.06$) in terms of the mean values for male ($M = 5.01$, $SD = 1.32$) and female students ($M = 4.47$, $SD = 1.06$) with the mean of the male students exceeding that of the female students by 0.54. However, to test whether the difference in the mean values was statistically significant, an independent t-test was used. First, Levene's test for equality of variances indicated that the variances for the two groups were equal ($F = .201$, $.655 > .05$), and therefore a test for equal variances was used. The mean value of male students' choice of program ($M = 5.01$, $SD = 1.32$) is not significantly higher ($t = 3.407$, $df = 227$, $.655 > .05$) than that of their female counterparts ($M = 4.47$, $SD = 1.06$). This suggests that gender does not determine the choice of programs first-year students make.

Discussion of Results on Gender Differences in terms of Choice of Programs of first-year SHS Students

From Table 5, as indicated earlier, showed that there are no statistically significant gender difference in terms of choice of program of first-year SHS students. The findings of the study are contrary to that of Gray and Gary (2012) [23] and Kobia-Acquah *et al.* (2020) [34] who found a statistically significant difference in second cycle students' choice of academic program based on gender. Also, the findings of the study contradicted that of Gottfredson (2014) [26] who earlier revealed that learners choose their academic programs based on their gender. By implication, it can be concluded that the choice of academic program of first-year SHS students in the Gomoa district is not affected by gender.

Hypothesis: There is no statistically significant relationship between students' choice of program at the SHS and the programs they aspire to pursue at the Tertiary level

This research hypothesis of the study sought to determine the relationship between students' choice of program at the SHS and the programs they aspire to offer at the Tertiary level. before the presentation of the results on the hypothesis in

Table 7, Table 6 first presents a cross-tabulation of students' choice of program (SCP) at the SHS and the programs they aspire to offer at the tertiary level.

Table 6: A Cross Tabulation of Students' Choice of Programme (SCP) at the SHS and the Programmes they aspire to offer at the Tertiary level

		Courses Students aspire to offer at the Tertiary level						
		N	BE	E	BC	C	M	L
Students Choice of Programme	Science	12	0	3	0	0	9	1
	Agricultural Science	1	0	0	0	0	0	2
	Home Economics	20	0	0	1	2	6	0
	General Arts	37	14	9	3	13	17	45
	Business	3	1	5	9	0	0	4
	Visual Arts	2	0	4	0	2	1	3
Total		75	15	21	13	17	33	55

Source: Fieldwork (2021)

NB: N = Nursing, BE = Bachelor of Education, E = Engineering, BC = Bachelor of Commerce, C = Construction, M = Medicine, L = Law

From Table 6, the majority (45) of the respondents who were reading General Arts aspired to read Law at the tertiary level. Also, the majority (20) of the respondents who were reading Home Economics aspire to read Nursing at the tertiary level. Again, the majority (12) of the students who were reading Science aspired to read Nursing at the tertiary level.

Table 7: Chi-Square Result of the Relationship between students' choice of Program at the SHS and the Programmes they aspire to offer at the Tertiary Level

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	142.690	36	$p < .001^{***}$
Likelihood Ratio	124.113	36	.000
Linear-by-Linear Association	4.236	1	.040

Source: Fieldwork (2021) Significance level .001***

In Table 7, the value of the test statistic is 142.690. Since the p-value (.000) is less than the chosen significance level ($p = .001$), there is enough evidence to suggest that there is an association between students' choice of program at the SHS and the courses they aspire to offer at the tertiary level ($X^2(2) > = 142.690, p = .000$). By implication, the program that students read at the Senior High School level may influence what academic program they aspire to pursue at the tertiary level.

Discussion of Results on the Relationship between Students' choice of program at the SHS and the programs they aspire to offer at the Tertiary level

The findings of the study in Tables 6 and 7 are in line with that of Gyimah *et al.* (2018) [27] who found a significant relationship between students' choice of program at the SHS and the programs they aspire to offer at the tertiary level. Also, Epstein *et al.* (2013) [22] found that there was a correlation between students' choice of program and the program they aspire to offer at the tertiary level. The implication of the study's finding is that students' choice of program at the SHS would tend to affect their choice of program at the tertiary level. This is because students tend to follow where their interest is as they climb the academic ladder.

Conclusion

The study revealed that one of the challenges first-year students faced in the choice of academic program at the SHS

level was that educational guidance on programs available at the SHS and their respective careers is not often done, gender did not have any influence on students' choice of academic program among first year SHS students, and there was a significant relationship between students' choice of program at the SHS and the academic programs they aspire to offer at the tertiary level. We, therefore, conclude that guidance on academic programs should be put in place to help SHS students make informed choices of programs that would commensurate with their aspired tertiary programs to would subsequently lead to their desired careers, and the role of gender should not be given prominence in such guidance programs.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are made.

1. The Ghana Education Service (GES) and teachers should educate students on the future prospects of other SHS programs apart from General Arts.
2. School counselors should provide guidance on programs available at the SHS level and their respective careers to enable students to make an informed academic choice of programs at the tertiary levels that are in tandem with their dreamed future jobs.
3. In providing guidance to students on choice of academic programs, no special preference should be given to male or female students. Since gender was found not to influence students' choice of academic program.

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