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AN EMPIRICAL SURVEY ON FACTORS INFLUENCING STUDENTS' SUBJECT SELECTION AT SECONDARY SCHOOL LEVEL IN AKURE NIGERIA

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ABSTRACT

The selection of subjects at secondary school level is the first and foremost step that might lead students to get desired higher education and achieve successful destination. This empirical study was conducted to explore potential factors affecting students' subject selection at secondary school level in Akure, Nigeria. In order to achieve this, real data set for the study was collected from 200 respondents which comprises of 100 students, 50 teachers of Federal University of Technology Staff Secondary School, Akure, Nigeria and 50 parents within the University's environment with the aid of well- structured survey questionnaires. The analyses were carried out using suitable statistical software. Descriptive and inferential statistical methods were applied to analyze the data. The empirical study revealed that students' subject choices were influenced by factors such as their potential, prior knowledge, parents' profession, and financial status. The study also revealed that students tend to select subjects that are easy, interesting, or aligned with teaching methods they find appealing, while parents and teachers guide them toward subjects important for future careers and job security. Recommendations were made for students, teachers, and parents to help with subject selection that meets the demands of the twenty first century.

Keywords: Simple Random Sampling, Subject Selection, Survey Questionnaire, Teaching Methods

Introduction

Education plays vital role in providing knowledge of achieving various goals to which most of developing countries trying to reach by forming suitable polices. Education has many effective advantages, some of which are; enhancing the skills, improving the human capital, attracting the local investment. These can be achieved by taking appropriate decision in life like the selection of discipline for study, selection of university or college, selection of specific field for study. This decision leads to best academic performance of the students which is one of the major goals of the students. Because higher academic performance leads to a successful life, choosing subjects are very important decision for students in secondary school, as it can have a significant impact on their future careers and academic achievements (Khan *et al.,* 2023). Several factors can influence students' subject selection decisions, including personal, academic, and environmental factors. Some students may select subjects based on their personal interests and passions, while others may prioritize subjects that they believe may lead to a successful career or higher earning potential. Academic factors such as academic ability, previous academic performance, and the availability of courses can also influence subject selection decisions. Environmental factors such as social and cultural factors, peer pressure, and parental expectations may also play a role in students' subject selection decisions (Memon *et al.,* 2021). In the educational system, students are considered as key players. They are essential to the development of a country. It is essential to know that choosing subjects at the secondary school level is vital for students' academic success. If subjects are chosen carefully, it will enhance future careers of students. Students need to

make the right choice to assist them in reaching their objectives and achieving their career goals. There are several reasons for choosing Commercial, Arts, and Science subjects. In general, it is advisable for students to choose subjects from a variety of fields in order to advance their education, develop their technical abilities, and achieving better jobs. The selection of subjects at secondary level is the first and foremost step that might lead students to get desired higher education and achieve successful destination (Javed, 2018). In Nigeria, students choose their own subjects, yet occasionally parents force their preferences on their children without taking their interests into account. Additionally, the parents do not inquire as to their children's level of interest. Thus, this ends up being the reason why some students fail in their academic endeavour. Several studies indicated that students find Science subjects appealing and interesting. The personalities of their teachers leave an impression on some students, but peers can have an impact on others (Mushtaq, 2012).

Javed (2018) conducted study in factors affecting students' subject selection at secondary school level. His study revealed that various factors such as students' potentiality, previous knowledge, parents' profession and financial position affect their choice of subjects at secondary school level. In addition, students prefer to opt for easy and interesting subjects. It is obvious that choosing and studying the right subjects for a career is now a crucial part of determining one's standing and level of self-respect in the modern world. A student is often subconsciously influenced by the advice of friends, family, teachers and institutions in selection of subjects. Simple random sampling involves the random selection of elements from a larger population, ensuring each member has an equal and independent chance of being included in the sample (Lakhre & Mishra, 2025). Simple random sampling is extensively used in scientific research, particularly for highly homogeneous populations, where members are randomly selected to participate in the research (Bharde, 2020). Singh (2003) described it as the simplest and most common method of selecting a sample, in which the sample is selected unit by unit, with equal probability of selection for each unit at each draw. Simple random sampling is often utilized in surveys and quantitative research designs (Rahi, 2017). In this method, individuals get an equal opportunity to participate in the study. It is favourable in studies where the population is homogeneous and uniformly distributed. Acharya (2013) also noted that in this method, every individual has an equal chance of being selected. Thomas (2020) emphasized that simple random sampling ensures every person in a population has an equal probability of being chosen. Additionally, researchers often develop a numeric list of the entire population and use computer programs to generate random numbers, especially when dealing with large sample sizes (Rahi, 2017).

Therefore, in view of the importance of the selection of subjects, the study intends to carry out an extensive empirical survey to investigate factors influencing the selection of subjects at secondary school level in Akure, Nigeria using simple random sampling approach with a view to providing an in-depth analysis of the decision-making process, focusing on factors such as academic interests, career goals, parental influence, availability of guidance from teachers, and societal expectations. However, there are some limitations to the study. Primarily, it is confined to secondary school students in Akure, meaning the findings may not be applicable to other States in Nigeria. Also, financial and time constraints prevented the study from being conducted at a national level. Despite these limitations, the study offers valuable insights for students, teachers, and parents to assist in making informed subject selection decisions at the secondary school level.

Methodology

This empirical survey adopted a quantitative approach to examine factors influencing the selection of subjects at secondary school level in Akure, Nigeria using simple random sampling. Simple random sampling technique is employed to ensure representation across various student demographics such as age, gender, class, etc. This enhances the generalization of findings to the broader student population. The method of data collection is essentially the practical methods and ways of getting information about a subject matter from different sources. The primary data for this study were collected through the administration of well-designed questionnaire to students and teachers of the Federal University of Technology Staff Secondary School, Akure, Nigeria.

Similarly, the study's population includes all secondary school students and teachers in the Federal University of Technology Staff Secondary School, Akure, Nigeria. The total population is approximately 450 students and 70 teachers. In estimating the appropriate sample size in this study, the formula proposed by Yamane (1967) was adopted. The formula was used to calculate the sample size at 95% confidence level which is defined as $n = \frac{N}{[1+N(e)^2]}$, where n is the sample size, N is the population size and e is the desired level of precision. In this case, N = 520, e = 0.05.

Therefore, $n = \frac{N}{[1+N(e)^2]}$;

$n = \frac{520}{[1+520(0.05)^2]} \approx 226$. Out of these 226 administered survey questionnaires, only 200 were returned for the three categories of the target respondents.

Results and Discussion

In this section, descriptive and inferential analyses were used. Descriptive analysis was used to present the socio-demographic information and the summary statistics of the variables in the form of frequency distribution while the inferential analysis addressed the objectives of the study.

Table 1: Socio-demographic characteristics of students

Variables	Count	Percent
Age		
10-12	1	1.0
13-15	57	57.0
16-18	42	42.0
Total	100	100.0
Gender		
Male	55	55.0
Female	45	45.0
Total	100	100.0
Class		
SSS 1	19	19.0
SSS 2	74	74.0
SSS 3	7	7.0
Total	100	100.0
Religion		
Christianity	72	72.0
Muslim	28	28.0
Total	100	100.0
Department		
Science	53	53.0
Art	29	29.0
Commercial	18	18.0
Total	100	100.0

Based on the results from table 1, it can be deduced that 55.0% of the respondents were male while the remaining 45.0% were female. The majority of the subjects belonged to the SSS 2 Class with 74.0%, Christianity had 72.0% and Science department had 53.0%.

Table 2: Response summary of students' perspective about subject selection

Items	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total	Mean (Std Dev)
Students choose their subjects based on their personal preferences	49 (49.0)	29 (29.0)	11 (11.0)	7 (7.0)	4 (4.0)	100 (100.0)	1.88 (1.113)
Students select their subjects based on their abilities	33 (33.0)	54 (54.0)	3 (3.0)	6 (6.0)	4 (4.0)	100 (100.0)	1.94 (0.983)
Students' classmates motivate them to select the subjects	16 (16.0)	31 (31.0)	21 (21.0)	18 (18.0)	14 (14.0)	100 (100.0)	2.83 (1.295)
The demands of the modern age inspire students to choose their subjects	27 (27.0)	43 (43.0)	13 (13.0)	11 (11.0)	6 (6.0)	100 (100.0)	2.26 (1.151)
The school environment plays a crucial role in students' subject choices	30 (30.0)	38 (38.0)	15 (15.0)	7 (7.0)	10 (10.0)	100 (100.0)	2.29 (1.250)
Students select subjects according to the trends of subjects in the society	25 (25.0)	26 (26.0)	23 (23.0)	20 (20.0)	6 (6.0)	100 (100.0)	2.57 (1.234)
Students choose their subjects based on their understanding of them	50 (50.0)	33 (33.0)	6 (6.0)	8 (8.0)	3 (3.0)	100 (100.0)	1.81 (1.061)
Students choose their subjects based on their solid prior knowledge	33 (33.0)	43 (43.0)	10 (10.0)	7 (7.0)	7 (7.0)	100 (100.0)	2.12 (1.157)
Students opt for subjects that are both easy and interesting	51 (51.0)	25 (25.0)	14 (14.0)	6 (6.0)	4 (4.0)	100 (100.0)	1.87 (1.116)
Students choose subjects in which they can achieve high marks and excellent grades	58 (58.0)	27 (27.0)	5 (5.0)	5 (5.0)	5 (5.0)	100 (100.0)	1.72 (1.102)
Students choose science subjects since they attract them	16 (16.0)	26 (26.0)	26 (26.0)	25 (25.0)	7 (7.0)	100 (100.0)	2.81 (1.187)
Students select subjects because of more job opportunities in the subjects	44 (44.0)	35 (35.0)	15 (15.0)	4 (4.0)	2 (2.0)	100 (100.0)	1.85 (0.957)
Students are attracted to subjects that offer greater opportunities for higher education	52 (52.0)	38 (38.0)	5 (5.0)	4 (4.0)	1 (1.0)	100 (100.0)	1.64 (0.835)
Students choose subjects based on the availability of those subjects in their school	28 (28.0)	37 (37.0)	22 (22.0)	11 (11.0)	2 (2.0)	100 (100.0)	2.22 (1.040)
Students choose subjects when they are inspired by national or international figures associated with those subjects	29 (29.0)	30 (30.0)	20 (20.0)	12 (12.0)	9 (9.0)	100 (100.0)	2.42 (1.273)
Students have the freedom to make their own decisions when selecting subjects	36 (36.0)	37 (37.0)	16 (16.0)	6 (6.0)	5 (5.0)	100 (100.0)	2.07 (1.103)
Limited financial resources pose a significant obstacle in selecting subjects, particularly in the case of science subjects	27 (27.0)	38 (38.0)	17 (17.0)	14 (14.0)	4 (4.0)	100 (100.0)	2.30 (1.133)

The media also plays a crucial role in educating students about the significance of various subjects	30 (30.0)	47 (47.0)	10 (10.0)	10 (10.0)	3 (3.0)	100 (100.0)	2.09 (1.036)
Students often consider their parents' professions when selecting subjects	28 (28.0)	38 (38.0)	17 (17.0)	13 (13.0)	4 (4.0)	100 (100.0)	2.27 (1.127)
Students may struggle to receive proper guidance in selecting their subjects due to their parents' lack of education	35 (35.0)	33 (33.0)	15 (15.0)	11 (11.0)	6 (6.0)	100 (100.0)	2.20 (1.206)

Based on the results from table 2, it can be inferred that students' subject selection was influenced by personal preferences (49.0%), abilities (54.0%), peer motivation (31.0%), modern demands (43.0%), and the school environment (38.0%), with significant emphasis on academic understanding (50.0%), ease of subjects (51.0%), potential for high grades (58.0%), job prospects (44.0%) and higher education opportunities (52.0%), while also noting limitations due to subject availability (37.0%) and financial constraints (38.0%).

Table 3: Socio-demographic characteristics of Teachers

Variables	Count	Percent
Age		
20-30	6	12.0
31-40	18	36.0
41-50	14	28.0
51-60	11	22.0
> 60	1	2.0
Total	50	100.0
Gender		
Male	21	42.0
Female	29	58.0
Total	50	100.0
Academic Qualification		
SSCE	2	4.0
NCE/OND	4	8.0
HND/B.Sc/B.Ed	32	64.0
POSTGRADUATE	12	24.0
Total	50	100.0
Religion		
Christianity	36	72.0
Muslim	14	28.0
Total	50	100.0
Working Experience		
1-5	7	14.0
6-10	14	28.0
11-15	13	26.0
16-20	7	14.0
>20	9	18.0
Total	50	100.0

From the results in table 3, it can be deduced that 42.0% of the respondents were male while 58.0% were female. The majority of the subjects were taught by teachers with academic qualifications HND/B.Sc/B.Ed with 64.0%, Christianity had 72.0% and 6-10 years of working experience had 28.0% respectively.

Table 4: Response summary of teachers' perspective about subject selection

Items	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total	Mean (Std. Dev)
Teachers offer guidance to students on selecting subjects based on their performance	23 (46.0)	24 (48.0)	1 (2.0)	2 (4.0)	0 (0.0)	50 (100.0)	1.64 (0.722)
Teachers assist students in selecting subjects based on their potential	19 (38.0)	21 (42.0)	8 (16.0)	2 (4.0)	0 (0.0)	50 (100.0)	1.86 (0.833)
Students choose subjects after consulting with their teachers	9 (18.0)	14 (28.0)	14 (28.0)	13 (26.0)	0 (0.0)	50 (100.0)	2.62 (1.067)
Students are attracted to select their subjects based on the teaching methodologies employed by their teachers	9 (18.0)	19 (38.0)	10 (20.0)	9 (18.0)	3 (6.0)	50 (100.0)	2.56 (1.163)
Teachers' encouragement serves as reinforcement for students in selecting their subjects	16 (32.0)	27 (54.0)	4 (8.0)	3 (6.0)	0 (0.0)	50 (100.0)	1.88 (0.799)
Teachers motivate students to choose subjects that align with their interests	15 (30.0)	28 (56.0)	2 (4.0)	3 (6.0)	2 (4.0)	50 (100.0)	1.98 (0.979)
Students choose subjects influenced by the regularity and punctuality of their ideal teacher	4 (8.0)	20 (40.0)	14 (28.0)	8 (16.0)	4 (8.0)	50 (100.0)	2.76 (1.080)
Teachers take a personal interest in helping students select their subjects	9 (18.0)	14 (28.0)	14 (28.0)	10 (20.0)	3 (6.0)	50 (100.0)	2.68 (1.168)
The effective use of audio-visual aids by teachers influences students' subject selection	10 (20.0)	17 (34.0)	9 (18.0)	10 (20.0)	4 (8.0)	50 (100.0)	2.62 (1.244)
Students' strong academic performance in a particular subject encourages them to choose it	27 (54.0)	19 (38.0)	3 (6.0)	1 (2.0)	0 (0.0)	50 (100.0)	1.56 (0.705)

From the results in table 4, it can be seen that 48.0% of the teacher's guide students based on past performance, and 42.0% consider students' abilities. Teacher encouragement (58.0%) and teaching methodology (38.0%) also play roles, with strong academic performance (54.0%) and alignment with students' interests (56.0%) further shaping choices. Also, 40.0% of students are inspired by teachers' punctuality and regularity, though 26.0% rarely consult teachers, and 20.0% feel teachers have not personally invested in their subject decisions.

Table 5: Socio-demographic characteristics of Parents

Variables	Count	Percent
Age		
20-30	4	8.0
31-40	21	42.0

41-50	18	36.0
51-60	4	8.0
>60	3	6.0
Total	50	100.0
Gender		
Male	28	56.0
Female	22	44.0
Total	50	100.0
Academic Qualification		
NCE/OND	3	6.0
HND/B.Sc./B.Ed.	30	60.0
POSTGRADUATE	17	34.0
Total	50	100.0
Religion		
Christianity	41	82.0
Muslim	9	18.0
Total	50	100.0

Based on the results from table 5, it can be deduced that 56.0% of the respondents were male while 44.0% were female. The majority of the parents have academic qualifications of HND/B.Sc./B.Ed. with 60.0%, Christianity had 82.0% respectively.

Table 6: Response summary of parents' perspective about subject selection

Items	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total	Mean (Std. Dev)
Parents motivate their children to select subjects they consider crucial for their future careers	29 (58.0)	19 (38.0)	0 (0.0)	2 (4.0)	0 (0.0)	50 (100.0)	1.50 (0.707)
Parents' educational background influences the subjects their children choose	20 (40.0)	20 (40.0)	4 (8.0)	5 (10.0)	1 (2.0)	50 (100.0)	1.94 (1.038)
Parents prioritize subjects they believe will provide better job security for their children	32 (64.0)	13 (26.0)	3 (6.0)	1 (2.0)	1 (2.0)	50 (100.0)	1.52 (0.863)
Parents encourage their children to choose subjects that align with their family's values and beliefs	13 (26.0)	19 (38.0)	6 (12.0)	6 (12.0)	6 (12.0)	50 (100.0)	2.46 (1.328)
Parents' occupations influence their children's subject selection	17 (34.0)	18 (36.0)	7 (14.0)	7 (14.0)	1 (2.0)	50 (100.0)	2.14 (1.107)
Parents believe it is important for their children to follow the career paths of family members when choosing their subjects	5 (10.0)	17 (34.0)	12 (24.0)	10 (20.0)	6 (12.0)	50 (100.0)	2.90 (1.199)
Parents draw on their own professional experiences to guide their children in selecting subjects	17 (34.0)	26 (52.0)	3 (6.0)	4 (8.0)	0 (0.0)	50 (100.0)	1.88 (0.849)

My children's personal interests and strengths play a significant role in their selection of Subjects	27 (54.0)	15 (30.0)	6 (12.0)	2 (4.0)	0 (0.0)	50 (100.0)	1.66 (0.848)
Parents influence their children's subject selection based on the potential for scholarships or further educational Opportunities	14 (28.0)	18 (36.0)	7 (14.0)	7 (14.0)	4 (8.0)	50 (100.0)	2.38 (1.260)
Parents believe that aligning subject choices with their children's natural talents will lead to long-term success	23 (46.0)	19 (38.0)	4 (8.0)	4 (8.0)	0 (0.0)	50 (100.0)	1.78 (0.910)

From the results in table 6, it can be seen that parents significantly influence students' subject selection, with 58% prioritizing future career prospects, 64% focusing on job security, 40% shaped by their educational background, and 54% considering their children's interests and strengths respectively.

Conclusion

This study carried out an empirical survey on factors influencing students' subject selection at secondary school level in Akure, Nigeria using simple random sampling. Findings from the study revealed that key factors such as students' mental readiness and prior knowledge (48%), attraction to subjects with higher education prospects (52%), and ease of achieving good marks (51%) significantly influence students' subject selection respectively. Students' abilities also play a role with 54% choosing subjects based on their skills. Teachers significantly influence choices, with 54% offering encouragement, 54% reinforcing strong academic performance, and 56% motivating alignment with student interests. Parental influence is notable, as 58% motivate based on future career value, 64% emphasize job security, 52% share professional insights, and 54% consider their children's strengths. The study underscores the importance of personal interests, confidence, skills, and values, along with the supportive roles of teachers and parents, in guiding students towards fulfilling subject choices and career paths at the Federal University Technology Staff Secondary School in Akure, Nigeria.

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