

# Path Analytic Study of Factors Affecting Students' Attitude towards Test-Taking in Secondary Schools in Afikpo Education Zone, Ebonyi State, Nigeria

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## ABSTRACT

A structural equation modelling approach was used to analyse 32 factors affecting students' attitudes towards test-taking in secondary schools. Data for the study were obtained from a sample of 1,276 students using the proportionate stratified random sampling technique. The instrument used for data collection was a Rating Scale on Factors Affecting Students' Attitudes Towards Test-Taking (RSFASATTT). Findings of the study revealed a total of 21 factors that significantly affect students' attitudes towards test-taking in secondary schools. Out of these significant factors, 14 had a positive effect while 7 factors negatively affected students' attitudes towards test-taking. However, 11 factors were not significant predictors of students' attitudes towards test-taking. Based on these findings, it was concluded that students' attitudes towards test-taking are affected by several factors. These factors are either traceable to the students' emotions, their family background, or the school environment. Based on this conclusion, recommendations and policy implications were made.

**Keywords:** Path analysis, Factors, Students, Attitudes, Test-taking, Academic activity.

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### Highlights of this paper

- The study analysed 32 factors using a structural equation modelling approach to determine the significant predictors of students' attitudes towards test-taking as an academic activity in secondary schools.
- The study discovered that 14 and 7 factors had a positive and negative effects on students' attitudes towards test-taking respectively. Although 11 factors were not significant predictors of students' attitudes towards test-taking in Afikpo Education Zone of Ebonyi State, Nigeria.
- It was concluded that students' attitudes towards test-taking are affected by several factors which are either traceable to the students' emotions, their family background, or the school environment.

## 1. INTRODUCTION

One of the most vital instruments used in the school system for diagnosis, placement, and measurement of students' academic performance is tests. Tests are inevitable instruments within the school system which helps teachers in making decision, serves as guide in the teaching-learning process, assists students in setting goals and determining the extent of their goals attained, serves as motivation to learners, and provides the teachers the opportunity to place or rank learners in the classroom or school. According to [Pour-Mohammadi and Abidin \(2011\)](#) tests are the most common evaluating method in nearly all educational systems and academic institutions worldwide, hence, tests carry the most load of the student's total grade particularly at the college level.

Test-taking is not something students should joke with since it is used to determine the extent to which learners have achieved their academic goals. "The significance and uses of tests have extended beyond schools as many serious decisions that affect people's lives are made entirely according to specific tests" ([Pour-Mohammadi and Abidin, 2011](#)). [Pour-Mohammadi and Jafre \(2011\)](#) averred that whether the goal is to be admitted into a college, obtain certification, the detection of specific behaviour, a personal selection, a decision about an individual's ability is usually made based on his or her scores in specific tests.

The issue of test-taking in the area of study is so severe that many students usually run away from it especially in subjects that require calculations such as mathematics, further-mathematics, physics, chemistry and so on. Some are described to be anxious towards testing and engage themselves in unethical behaviours like classroom absenteeism through wandering around the school compound, hiding in the bush (in the rural perspective), and so on. Keen observation has shown that some students do hate some teachers especially those of mathematics and chemistry discipline that announce any form of testing to them. As a result of this, hazardous effects have been posted to the school management as conflict often emerges between some parents and teachers in the course of disciplining the students. It has also led to students displaying unfavourable attitudes like examination malpractice and anxiety towards test-taking, hence resulting in the reverse of students' goal attainment.

As noted by some scholars, the factors influencing students' attitudes towards test-taking include motivation/effort, concentration, belief in taking tests, comparative anxiety, test ease, external attribution, general need achievement, future effects and preparation difficulty level of the test, the environment of the examination administration, lack of familiarity with the examination objectives, anxiety and family problems ([Smith, 1997](#); [Rasul and Bukhsh, 2011](#); [Neemati et al., 2014](#)). Apart from the ones listed above, other factors have also been enumerated by scholars as correlates of students' attitudes towards test-taking as an academic activity. These factors are classified in this study into three groups namely: school environment factors, home environment factors, and students psychological/emotional factors. These three factors are presented in the conceptual model below in [Figure 1](#).

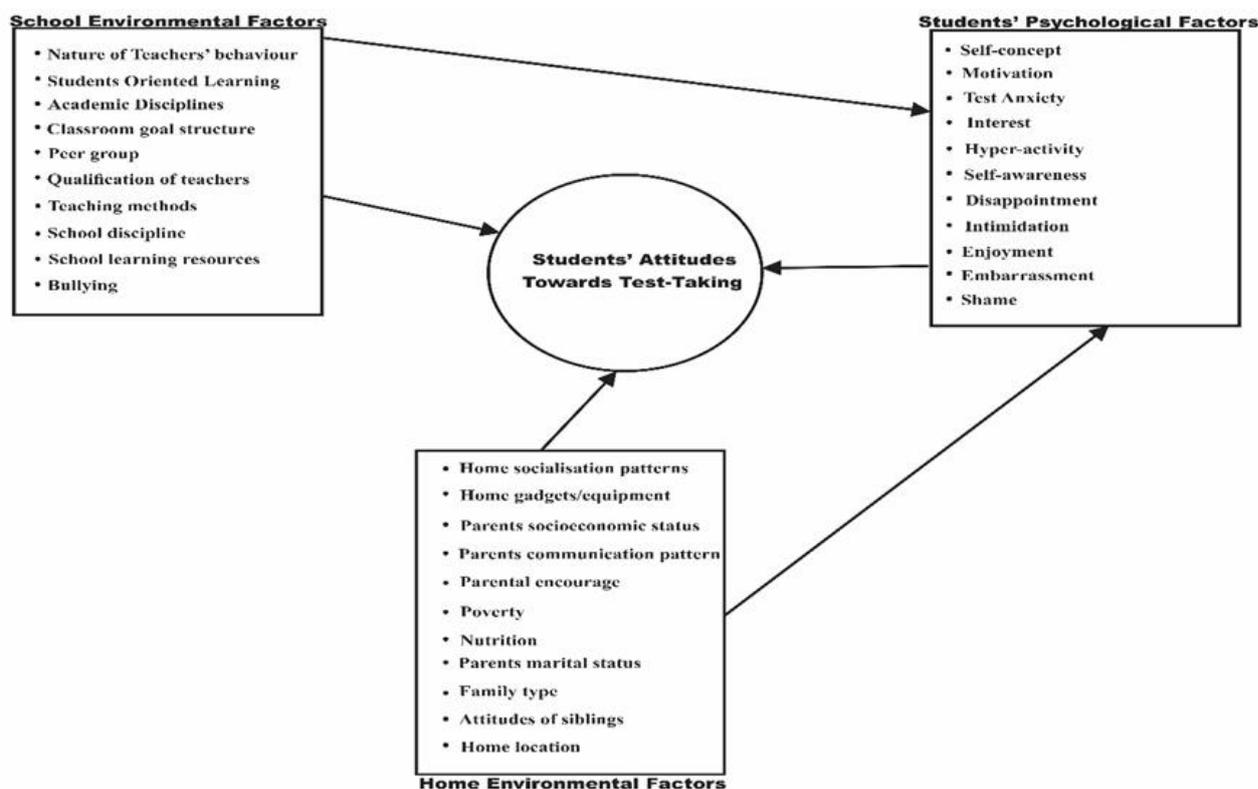


Figure-1. The factors affecting students' attitudes towards test-taking as an academic activity.

As shown in Figure 1, school environmental factors include nature of teachers' behaviour, student-oriented learning, academic disciplines, classroom goal structures, classroom behaviour, qualification of teachers, teachers' relationships with students, teaching methods, school discipline, availability of school learning resources, and peer group (Anene, 2005; Jayanthi and Srinivasan, 2015). Home environmental factors include socialization patterns in the home, home location, home gadgets, socio-economic status, parents' communication pattern, parental encouragement, poverty, Nutrition, parent marital status, family type, and attitudes of siblings (Dzever, 2015; Kamut, 2015; Eimuhi and Ogedegbe, 2016). Students psychological and emotional factors on the other hand include: Self-concept, motivation, anxiety, interest, socio-emotional behaviour, hyperactivity, self-awareness, anger, sadness, boredom, frustration, disappointment, guilt, irritation, intimidation, hurt, shame, upset, confusion, regret, embarrassment, enjoyment, hope, pride, and gratitude (Goetz, 2013; Rauf *et al.*, 2013; Habibian *et al.*, 2015; Noyes *et al.*, 2015; Poulou, 2017; Priyavrat and Deepa, 2018; Rowe and Fitness, 2018; Owan *et al.*, 2019). Some of these factors listed by previous studies were selected based on antecedents and existing theory.

The findings from empirical studies provided support for the model of this study. For instance, Owan (2012) discovered that, the use of instructional materials adequately led to pupils' poor performance in mathematics; parents' socio-economic status contributed to the pupils' performance in mathematics; pupils in private primary school perform better than their colleagues in public schools, and teachers contribute to the poor performance of pupils. Parental influence, family income, teacher effective support, classroom instruction are significant predictors of attitude (Chauhan *et al.*, 2017; Davadas and Lay, 2018).

Dodeen *et al.* (2014) found that there is a positive significant relationship between students' test-taking skills and student's motivation in learning mathematics; attitudes towards mathematics and attitudes towards tests. While mathematics anxiety was shown to have a significant negative relationship with test-taking skills. The study concluded that the improvement of secondary school students' testing skills to be significantly correlated with variables that play a substantial role in a student's level of achievement in mathematics.

Chu *et al.* (2014) using structural equation modelling, investigated the responses of 206 university students to a modified version of the test attitude survey and interpersonal trust scale. The result suggested that affective variables need to be more fully considered when practicing and generating policy to improve students test performance. A similar study found that the effects of attitudes were indirect (via test-taking motivation) and minimal, suggesting that the influence of attitudes on students' test performance is negligible, further supporting the validity of inferences made from such low-stakes tests (Zilberberg *et al.*, 2014). This finding from earlier studies provided mixed and unclear facts about the factors that can contribute either positively or negatively to students' attitudes towards test-taking. It is known through the existing body of knowledge that different factors affect students' attitudes, what also seems unknown is the extent to which each of these factors contribute to students' attitudes towards test-taking.

From the existing body of literature, as cited herein, it was also observed that many factors influence the attitudes of students toward test-taking as an academic activity. Several studies related to the present study have been conducted in different locations and at different times in an attempt to unleash these factors. Having looked at the various factors influencing students' attitudes towards test-taking as an academic activity, as pointed out by other scholars, it becomes pertinent for a study to analyse these factors and their respective contributions to students' attitudes towards test-taking. These are the gaps this study was designed to fill as well as to ascertain the significant factors affecting students' attitudes towards test-taking from those advocated by earlier studies.

### *1.1. Research question*

- i. What are the significant factors affecting students' attitudes towards test-taking in secondary schools?

## **2. METHODS**

The descriptive survey research design was adopted in this study. This is because the study made use of facts currently manifested by the phenomena of interest through the use of questionnaires. Owan and Ekaette (2019) averred that descriptive survey design is used to find out what situations, events attitudes or opinions are occurring in a population and also addresses issues of distribution of some phenomena in a population or among subgroups of a population. This study found this design suitable as it is based on investigations and tries to describe the characteristics of students toward test-taking as an academic activity.

The target population of this study comprised 12,763 secondary school students distributed across all the public and private secondary schools in Afikpo Education Zone of Ebonyi State. In selecting the sample for this study, cluster sampling technique was adopted by the researchers. The first cluster comprised 7851 students distributed across 43 public secondary schools while the second cluster comprised of 4912 students distributed across 71 private secondary schools in Afikpo Education Zone. Proportionate sampling technique was adopted by the researchers in selecting 10% each from the clustered public and private schools resulting in the selection of 785 and 491 students respectively, with an overall sample of 1,276 students from the entire population.

The instruments used for data collection was a Rating Scale on Factors Affecting Students' Attitudes Towards Test-Taking (RSFASATTT). The scale was designed by the researchers and contained 32 items (factors) listed for respondents to rate the extent to which they perceive such factors as contributing to their test-taking attitudes. The ratings were made on a 10-points scale from 1 to 10 with smaller values (values close to one) representing weak contribution and values closer to 10 representing strong contributions. The instrument was validated by three psychometric experts in test and measurement and the reliability of the instrument was established using

Cronbach's alpha reliability technique. The reliability coefficient of .874 provided evidence that the instrument was internally consistent for measurement.

The data of this study were obtained from primary sources (the respondents) through the administration of copies of the instrument. The data obtained from the respondents were coded, scored, and analysed using descriptive statistics such as mean and standard deviation. The research question was answered using a structural equation modelling approach (Path analysis), the .01, .05, and .10 level of significance. The results obtained of the analysis is presented in the following section.

### 3. RESULTS

#### 3.1. Research Question One

What are the significant factors affecting students' attitudes towards test-taking in secondary schools? This research question was answered using structural equation modelling (path analysis). The result of the analysis is presented in Table 1.

**Table-1.** Summary of results showing factors affecting students' attitudes towards test-taking as an academic activity in secondary schools.

Factors	Label	$\beta$	t	p	Path	Rank
Nature of teachers' behaviour	F <sub>1</sub>	.036	1.922	.055*	p1	18 <sup>th</sup>
Students'-oriented learning	F <sub>2</sub>	.013	0.695	.487	p2	28 <sup>th</sup>
Academic discipline	F <sub>3</sub>	.030	1.614	.107	p3	22 <sup>nd</sup>
Classroom goal structure	F <sub>4</sub>	.021	1.099	.272	p4	25 <sup>th</sup>
Peer group	F <sub>5</sub>	.032	1.689	.091*	p5	21 <sup>st</sup>
Qualification of teachers	F <sub>6</sub>	.064	3.387	***	p6	14 <sup>th</sup>
Teaching methods	F <sub>7</sub>	.011	0.586	.558	p7	29 <sup>th</sup>
School disciplinary control	F <sub>8</sub>	.078	4.108	***	p8	11 <sup>th</sup>
School learning resources	F <sub>9</sub>	.001	0.030	.976	p9	32 <sup>nd</sup>
Bullying by colleagues	F <sub>10</sub>	-.112	5.914	***	p10	9 <sup>th</sup>
Students' self-concept	F <sub>11</sub>	.002	0.092	.927	p11	31 <sup>st</sup>
Students' motivation levels	F <sub>12</sub>	.062	3.274	***	p12	16 <sup>th</sup>
Students' test anxiety	F <sub>13</sub>	-.458	24.241	***	p13	1 <sup>st</sup>
Students' interest	F <sub>14</sub>	.123	6.539	***	p14	8 <sup>th</sup>
Hyper-activity of students	F <sub>15</sub>	-.033	1.726	.084*	p15	20 <sup>th</sup>
Self-awareness	F <sub>16</sub>	.035	1.857	.063*	p16	19 <sup>th</sup>
Disappointment	F <sub>17</sub>	-.077	4.102	***	p17	12 <sup>th</sup>
Intimidation	F <sub>18</sub>	-.017	0.902	.367	p18	26 <sup>th</sup>
Enjoyment lifestyle	F <sub>19</sub>	-.138	7.291	***	p19	7 <sup>th</sup>
Embarrassment	F <sub>20</sub>	-.015	0.778	.436	p20	27 <sup>th</sup>
Shame	F <sub>21</sub>	-.193	10.229	***	p21	5 <sup>th</sup>
Home socialisation patterns	F <sub>22</sub>	.063	3.339	***	p22	15 <sup>th</sup>
Home gadgets/equipment	F <sub>23</sub>	-.026	1.388	.165	p23	24 <sup>th</sup>
Parents' socio-economic status	F <sub>24</sub>	.276	14.637	***	p24	2 <sup>nd</sup>
Parents' communication pattern	F <sub>25</sub>	.066	3.502	***	p25	13 <sup>th</sup>
Parental encouragement	F <sub>26</sub>	.007	0.397	.691	p26	30 <sup>th</sup>
Poverty	F <sub>27</sub>	-.042	2.201	.028**	p27	17 <sup>th</sup>
Nutritional level	F <sub>28</sub>	.030	1.604	.109	p28	23 <sup>rd</sup>
Parents' marital status	F <sub>29</sub>	.185	9.788	***	p29	6 <sup>th</sup>
Family type	F <sub>30</sub>	.200	10.594	***	p30	4 <sup>th</sup>
Attitudes of other siblings	F <sub>31</sub>	.227	12.047	***	p31	3 <sup>rd</sup>
Home location	F <sub>32</sub>	.109	5.790	***	p32	10 <sup>th</sup>
***significant at the .01 alpha level; **significant at the .05 alpha level *significant at the .10 alpha level				R <sup>2</sup> = .546		

Source: Field survey, 2019.

The results in Table 1 showed that the nature of teachers' behaviour ( $F_1$ ) is a significant and positive factor ( $\beta = .036, t=1.922, p < .10$ ), while students'-oriented learning ( $F_2$ ) is a positive but non-significant factor affecting students' attitudes towards test-taking ( $\beta = 0.13, t = -0.695, p > .10$ ). The academic discipline of students ( $F_3$ ) is a positive but non-significant predictor ( $\beta = .030, t = 1.614, p > .10$ ), while classroom goal structure ( $F_4$ ) is a positive but non-significant factor affecting students' attitude towards test-taking ( $\beta = 0.21, t=1.695, p > .10$ ). Peer group ( $F_5$ ) is a positive and significant factor ( $\beta = .032, t=1.689, p < .10$ ), while the qualification of teachers ( $F_6$ ) is a positive and significant factor ( $\beta = .064, t = 3.387, p < .01$ ) affecting students' attitudes towards test-taking as an academic activity. The teaching methods adopted by teachers ( $F_7$ ) is a positive but non-significant factor ( $\beta = .011, t = 0.586, p > .10$ ), while school disciplinary control ( $F_8$ ) is a significant and positive factor ( $\beta = .078, t = 4.108, p < .01$ ) contributing to students' attitudes towards test-taking. Provision of school facilities ( $F_9$ ) is not significant but has a positive effect ( $\beta = .001, t = 0.030, p > .05$ ), while bullying by colleagues ( $F_{10}$ ) is a significant factor that negatively affects students' attitudes towards test-taking ( $\beta = -.112, t = 5.914, p < .05$ ).

Students' self-concept ( $F_{11}$ ) is a positive but a non-significant factor ( $\beta = .002, t = 0.092, p > .10$ ), while students' motivation levels ( $F_{12}$ ) has a significant and positive effect ( $\beta = .062, t = 3.274, p < .01$ ) on students' attitudes towards test-taking. Students' test anxiety ( $F_{13}$ ) has a significant negative effect ( $\beta = -.458, t = 24.241, p < .01$ ), while students' interest ( $F_{14}$ ) has a significant positive effect ( $\beta = .123, t = 6.539, p < .01$ ) on students' attitudes towards test-taking. Hyper-activity of students has a significant negative effect ( $F_{15}$ ) ( $\beta = -.033, t = 1.726, p < .10$ ) while students' self-awareness ( $F_{16}$ ) ( $\beta = .035, t = 1.857, p < .10$ ) is a significant positive factor affecting students' attitudes towards test-taking. Disappointment ( $F_{17}$ ) is a significant negative factor ( $\beta = -.077, t = 4.102, p < .01$ ), while intimidation ( $F_{18}$ ) is a negative but non-significant factor ( $\beta = -.017, t = 0.902, p > .10$ ) that affects students' attitude towards test-taking. Students' enjoyment lifestyles ( $F_{19}$ ) has a significant negative effect ( $\beta = -.138, t = 7.291, p < .01$ ), while students' embarrassment ( $F_{20}$ ) has a non-significant negative effect ( $\beta = -.015, t = 0.778, p > .10$ ) on students' attitudes towards test-taking. Shame ( $F_{21}$ ) has a significant negative effect ( $\beta = -.193, t = 10.229, p > .01$ ), while home socialisation patterns ( $F_{22}$ ) have a significant positive effect ( $\beta = .063, t = 3.339, p < .01$ ) on students' attitudes towards test-taking.

Availability of home gadgets/equipment ( $F_{23}$ ) has non-significant negative effect ( $\beta = -.026, t = 1.388, p > .10$ ), while parents' socio-economic status ( $F_{24}$ ) has a significant positive effect ( $\beta = .276, t = 14.637, p < .01$ ) on students' attitudes towards test-taking. Parents' communication pattern ( $F_{25}$ ) has a significant positive effect ( $\beta = .066, t = 3.502, p < .01$ ), while parental encouragement ( $F_{26}$ ) has a positive but not significant effect ( $\beta = .007, t = 0.397, p > .10$ ) on students' attitudes towards test-taking. Poverty ( $F_{27}$ ) has a significant negative effect ( $\beta = -.042, t = 2.201, p < .05$ ), and nutritional level of students ( $F_{28}$ ) has a non-significant positive effect ( $\beta = .030, t = 1.604, p > .10$ ) on students' attitudes towards test taking as an academic activity. There is a significant positive effect of parents' marital status ( $F_{29}$ ) ( $\beta = .185, t = 9.788, p < .01$ ), family type ( $F_{30}$ ) ( $\beta = .200, t = 10.594, p < .01$ ), attitudes of other siblings ( $F_{31}$ ) ( $\beta = .227, t = 12.047, p < .01$ ), and home location ( $F_{32}$ ) ( $\beta = .109, t = 5.790, p < .01$ ) on students' attitudes towards test-taking as an academic activity respectively.

It was discovered that out of the 32 factors in the model, 21 factors were significant predictors of students' attitudes towards test-taking at either 1% ( $\alpha = .01$ ), 5% ( $\alpha = .05$ ), or 10% ( $\alpha = .10$ ) levels. These significant factors include Nature of teachers' behaviour ( $F_1$ ), Peer group ( $F_5$ ), Qualification of teachers ( $F_6$ ), School disciplinary control ( $F_8$ ), Bullying by colleagues ( $F_{10}$ ), Students' motivation levels ( $F_{12}$ ), Students' test anxiety ( $F_{13}$ ), Students' interest ( $F_{14}$ ), Hyper-activity of students ( $F_{15}$ ), Self-awareness ( $F_{16}$ ), Disappointment ( $F_{17}$ ), Enjoyment lifestyle ( $F_{19}$ ), Shame ( $F_{21}$ ), Home socialisation patterns ( $F_{22}$ ), Parents' socio-economic status ( $F_{24}$ ), Parents' communication pattern ( $F_{25}$ ), Poverty ( $F_{27}$ ), Parents' marital status ( $F_{29}$ ), Family type ( $F_{30}$ ), Attitudes of other siblings ( $F_{31}$ ), and

Home location (F<sub>32</sub>). This finding implies that the factors are strong in causing a negative or positive change in the attitudes of students towards test-taking.

Eleven factors had no significant effect on students' attitudes towards test-taking as an academic activity at either 1% ( $\alpha = .01$ ), 5% ( $\alpha = .05$ ), or 10% ( $\alpha = .10$ ) levels. These factors include Students'-oriented learning (F<sub>2</sub>), Academic discipline (F<sub>3</sub>), Classroom goal structure (F<sub>4</sub>), Teaching methods (F<sub>7</sub>), School learning resources (F<sub>9</sub>), Students' self-concept (F<sub>11</sub>), Intimidation (F<sub>18</sub>), Embarrassment (F<sub>20</sub>), Home gadgets/equipment (F<sub>23</sub>), Parental encouragement (F<sub>26</sub>), and Nutritional level (F<sub>28</sub>).

Out of the 21 significant predictors, 16 factors including Qualification of teachers (F<sub>6</sub>), School disciplinary control (F<sub>8</sub>), Bullying by colleagues (F<sub>10</sub>), Students' motivation levels (F<sub>12</sub>), Students' test anxiety (F<sub>13</sub>), Students' interest (F<sub>14</sub>), Disappointment (F<sub>17</sub>), Enjoyment lifestyle (F<sub>19</sub>), Shame (F<sub>21</sub>), Home socialisation patterns (F<sub>22</sub>), Parents' socio-economic status (F<sub>24</sub>), Parents' communication pattern (F<sub>25</sub>), Parents' marital status (F<sub>29</sub>), Family type (F<sub>30</sub>), Attitudes of other siblings (F<sub>31</sub>), and Home location (F<sub>32</sub>) were significant at the .01 alpha level; one factor [Poverty (F<sub>27</sub>)] was significant at the .05 alpha level; while four factors including Nature of teachers' behaviour (F<sub>1</sub>), Peer group (F<sub>5</sub>), Hyper-activity of students (F<sub>15</sub>), Self-awareness (F<sub>16</sub>) were significant at the .10 alpha level.

The 32 factors jointly accounted for 54.6% of the total variance in students' attitudes towards test-taking as an academic activity, with the remaining 45.4% explained by other factors not included in this study. When these 32 factors were ranked, students' test anxiety was the highest predictor. This is followed by parents' socioeconomic status, attitudes of other siblings, family type, shame, parents' marital status, enjoyment lifestyle, students' interest, bullying by colleagues, home location, school disciplinary control, disappointment, parents' communication patterns, qualification of teachers, home socialisation patterns, students' motivation levels, poverty, self-awareness, hyper-activity of students, and so on as shown in Table 1.

#### 4. DISCUSSION OF FINDINGS

This study discovered that 14 factors such as Nature of teachers' behaviour (F<sub>1</sub>), Peer group (F<sub>5</sub>), Qualification of teachers (F<sub>6</sub>), School disciplinary control (F<sub>8</sub>), Students' motivation levels (F<sub>12</sub>), Students' interest (F<sub>14</sub>), Self-awareness (F<sub>16</sub>), Home socialisation patterns (F<sub>22</sub>), Parents' socio-economic status (F<sub>24</sub>), Parents' communication pattern (F<sub>25</sub>), Parents' marital status (F<sub>29</sub>), Family type (F<sub>30</sub>), Attitudes of other siblings (F<sub>31</sub>), and Home location (F<sub>32</sub>) are significant positive predictors of students' attitudes towards test-taking activity in secondary schools. The positive prediction suggests that an increase in these factors will lead to an improvement in students' attitudes towards test-taking and vice versa.

This finding is unsurprising because the nature of teachers' behaviour will affect students' perception of subjects and could affect the way students prepare for test-related activities (Blazar and Kraft, 2017). Consistent with this finding, other studies have shown that high-quality teachers do not only raise test scores but also to provide emotional support that contributes to students' social and emotional development, manage classroom behaviours, deliver accurate content, and support critical thinking (Lampert, 2001; Pianta and Hamre, 2009; Cohen, 2011).

Peers can also influence their colleagues to behave in a particular manner through imitation and followership. This finding is in contrast with the finding of Mokoro *et al.* (2014) which revealed that peers did not influence students' attitudes. However, the finding of this study supports the results of Majeed (2010) and Okorodudu (2013) which discovered that peers have a significant effect on students' attitude towards academic activities. Teachers' qualification also influences students' attitudes in schools with some studies advocating that teachers with higher

qualifications are better in promoting positive attitudes (Owan, 2012; Tazitabong, 2019). The findings of Shukurat *et al.* (2015) concluded that the higher the qualification of teachers, the higher the performance of the students.

Disciplinary control in the school is the primary mechanism with which unruly behaviours are smoothed-off allowing for only acceptable attitudes. Such control will affect students' behaviour towards academic activities generally, and test-taking specifically. Some early studies have also shown that disciplinary control affects students' attitudes and academic performance (Owan and Ekaette, 2019; Owan *et al.*, 2019). Motivation levels of students have proven over time to be a strong factor affecting students' attitudes since it is what drives students' interest to learn. Therefore, a highly motivated student is ready to pursue academic endeavours without any form of anxiety while unmotivated ones feel depressed and unwilling to learn. This finding supports the results (Zubeyde and Fulya, 2017) which indicated that students' instrumental and intrinsic motivation were at a moderate level and that the learners' attitude changed according to their gender, fields of study and academic achievement. The study proposed alternative solutions at the individual and institutional level to help students develop motivation and more favourable attitudes toward learning.

Students' interest and self-awareness are intrinsic variables that show the disposition of learners to learn and the value students place on themselves. These two factors will affect students' attitudes, moods, and feelings which will, in turn, affect students' readiness to take a test. This finding corroborates the results of Uitto *et al.* (2011) which discovered that there is a significant association (relationship) between students' interest and their attitudes. Adekunle and Femi-Adeoye (2016) also found earlier that students' interest has a significant relationship with their academic performance in Biology.

Family background variables such as home socialisation patterns, parents' socio-economic status, parents' communication pattern, parents' marital status, family type, attitudes of other siblings and home location will affect students' attitudes negatively if there is a weak relationship among family members, if parents are unable to meet the family needs, if there is poor communication among members, if parents are separated, if the family is so large that resources cannot be distributed sufficiently, if the attitudes of other siblings are negative, and if the home is located in an uncondusive atmosphere (Wen, 2006; Chen and Fang, 2007; Fang and Feng, 2008; Li, 2008; Wu, 2013). This finding is consistent with the results of Zhonglu and Zeqi (2018) which established that family background variables affect students' attitudes towards learning. Li (2006); Liu (2008); Zhao and Hong (2012) maintained that families with higher social economic status can make use of their advantages to gain access to better educational opportunities for their children, to enhance their possibilities of obtaining higher education. Other studies have shown that parental influence, family income, teacher effective support, classroom instruction are significant predictors of attitude toward mathematics (Chauhan *et al.*, 2017; Davadas and Lay, 2018).

It was also uncovered that seven factors including Bullying by colleagues ( $F_{10}$ ), Students' test anxiety ( $F_{13}$ ), Hyper-activity of students ( $F_{15}$ ), Disappointment ( $F_{17}$ ), Enjoyment lifestyle ( $F_{19}$ ), Shame ( $F_{21}$ ), and Poverty ( $F_{27}$ ), are significant negative predictors of students' attitudes towards test-taking. The negative effect of these factors implies that students' attitudes towards test-taking will decrease as the magnitude of these factors increase and vice versa. This finding is quite interesting because bullying by colleagues makes the school environment uncomfortable for students, students' test anxiety reduces the level of students' preparedness before the commencement of a test, hyperactivity of students causes a lot of distraction to students, enjoyment lifestyle takes students far away from the school and test venue, shame hides the real identity of students in taking tests, while poverty leads to short supply of academic facilities such as textbooks, writing materials, school fees, and so on. All these negatively affect students' attitudes towards test-taking activity, hence the finding of this study. This finding is consistent with the

finding of other studies which indicated that test anxiety has an inverse relationship with students attitudes and performance (Dawood *et al.*, 2016; Hanem, 2016; Owan *et al.*, 2019).

## 5. CONCLUSION/RECOMMENDATIONS

Based on the findings of this study, it was concluded that students' attitudes towards test-taking are affected by several factors. These factors are either traceable to the students' emotions, their family background, or the school environment. Factors that significantly and positively affect students' attitudes towards test-taking include nature of teachers' behaviour, peer group, qualification of teachers, school disciplinary control, students' motivation levels, students' interest, self-awareness, home socialisation patterns, parents' socio-economic status, parents' communication pattern, parents' marital status, family type, attitudes of other siblings, and home location. Factors that negatively affect students' attitudes towards test-taking in a significant manner include bullying by colleagues, students' test anxiety, hyperactivity of students, disappointment, enjoyment lifestyle, shame, and poverty. All these factors should be considered by school administrators and teachers when designing a test or examination for students. This will enable teachers to prepare students to be adequately ready before taking any test.

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