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An analysis of Cognitive Emotional and Physical Symptoms of Mathematics Anxiety: Its Relationship with Students' Mathematics Achievement in Senior Secondary School Students in Sokoto State, Nigeria

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Abstract

This research aimed at exploring the students' level of mathematics anxiety, gender differences in mathematics anxiety, and the relationship between mathematics anxiety and students' mathematics score among secondary schools in Sokoto state, Nigeria.109 questionnaires were distributed and 102 were retrieved back. The study is quantitative in nature. The data were collected using cognitive, emotional and physical mathematics anxiety rating scale CEP-MAR with reliability alpha score of .810 adapted from Maths anxiety rating scale MAR by Godbey (1997) and it captured Last mathematics examination Score of the respondents. Data were analysed using SPSS. The findings revealed that about 70.8% of the respondent have higher level of mathematics anxiety, there is significant difference of mathematics anxiety across students' gender and there is inverse relationship between mathematics anxiety and students' achievement. However, both emotional and physical symptoms indicated no significant difference on gender in terms of mathematics anxiety while cognitive symptoms indicated singnificant difference.

Keywords: Mathematics anxiety, mathematics score, gender, CEP-MAR

Introduction

Anxiety is a strain, stress, and tension or confusing from an individual's mind and body (Olatunde, 2009). Mathematics anxiety has so many various definitions (Stoehr, 2017). This includes; it is the feeling or experiencing of tension and fear which interferes with the manipulation of numbers and solving of mathematical issues in a wide variety of ordinary life and academic situations causing forgetfulness and loss of self-confidence in a person (Tobias, 1993). It is also a negative effect and stress of an individual when dealing with mathematical issues (Ashcraft & Moore, 2009; Beilock at al., 2010; Lindskog, Winman, & Poom, 2017a). A more elaborated explanation was given by Escalera-Chávez et al., (2017) who defined mathematics anxiety

as a state of anxiety caused by performing mathematics task which is demonstrated with a feeling of apprehensions, stress, frustrations, aversions, worry, and fear. In general perspective, there are three symptoms associated with mathematics anxiety which are; physical, emotional and cognitive symptoms (Whyte and Anthony, 2012). The physical symptoms are those symptoms which an individual demonstrates when affected by mathematics anxiety such as; a nervous stomach, difficulty breathing, biting nails and sweatiness. Mathematics anxiety can be seen as the characteristics of an individual with the learning problems and can be considered to be both emotional and natural (Gresham, 2010). Ma & Xu (2017) stated that the relationship between mathematics anxiety and mathematics achievement can be understood as a psychological function of the emotional reaction. The emotional symptoms of mathematics anxiety have to do with inner feelings like lack of confidence, feeling of helplessness, confusion, feeling of tiredness in a mathematics lesson. Often a student may just want to quit and go home for being stressed out on the subject (Finlayson, 2014). The cognitive symptoms of mathematics anxiety are attributed to mental ability and predisposition of mathematics such as inability to concentrate, negative self-talk and excessive worrying (Taylor, 2017).

Literature review

In general perspective, there are three symptoms associated with mathematics anxiety which are; physical, emotional and cognitive symptoms (Whyte and Anthony, 2012). The physical symptoms are those symptoms which an individual demonstrates when affected by mathematics anxiety such as; a nervous stomach, difficulty breathing, biting nails and sweatiness. Mathematics anxiety can be seen as the characteristics of an individual with the learning problems and can be considered to be both emotional and natural (Gresham, 2010). Ma & Xu (2017) stated that the relationship between mathematics anxiety and mathematics achievement can be understood as a psychological function of the emotional reaction. The emotional symptoms of mathematics anxiety have to do with inner feelings such as lack of confidence, feeling of helplessness, confusion, feeling of tiredness in a mathematics lesson, Often a student may just want to quit and go home for being stressed out on the subject (Finlayson, 2014). The cognitive symptoms of mathematics anxiety are attributed to mental ability and predisposition of mathematics such as inability to concentrate, negative self-talk and excessive worrying (Taylor, 2017).

Arigbabu, Tobih & Arigbabu (2016), in their research, carried out in Nigeria for the pre-service teachers, stated that mathematics anxiety is gender sensitive and majority of the respondents (72.5%) had an excessive level of mathematics anxiety. When pre-service teachers exhibit such unnecessary high level of mathematics anxiety how do someone imagine their potential students' level of mathematics anxiety? Furthermore, another critical issue explored by the researcher in the Nigerian setting is concerning gender disparities of the mathematics anxiety. It shows that females experience more anxiety than their counterpart males. This is notwithstanding due to fact that some authors of mathematics textbook are using boys' picture when demonstrating mathematics phenomena thereby neglecting their counterpart girl which is seriously affecting them. A female teachers' mathematics anxiety negatively relates to girls' student mathematics achievement (Beilock et al., 2010).

Previous researches indicated that student with higher level of mathematics anxiety found to have low achievement and confidence in mathematics subject (Barrows, Dunn, & Lloyd, 2013; Devine, Fawcett, Szűcs, & Dowker, 2012; Ramon & Adepeju, 2015; Zakaria & Nordin, 2008). The researches proven that students with a low level of mathematics anxiety have a tendency to perform higher than those with higher level of mathematics anxiety. The researches indicated that student with a higher level of mathematics confidence performed extremely higher on mathematics examination than a student with a higher level of mathematics anxiety and less confidence.

State of literature

- The studies found that mathematics is seriously affecting students' mathematics education all over the world and social negative attitude of students is one of key point to the excessive fear in mathematics.

- Researcher define mathematics anxiety as fear in mathematics when conducting mathematics task in both academic and non-academics situation causing individuals to confused or loss confident.

- Studies revealed that mathematics anxiety is affecting students' achievement and is gender sensitive

Contribution of this paper to the literature

- The paper developed mathematics anxiety rating scale in terms of cognitive, emotional and physical symptoms of mathematics anxiety.
- Sub categories (cognitive, emotional and physical Symptoms) of mathematics anxiety were tested to find the effect of each symptoms.
- Mathematics anxiety's effect on student achievement and age were tested in the Nigerian context and in particular Sokoto state.

Importance of the research

Mathematics is an important subject that has so many applications in engineering, medicine, technology and mathematics-related subject (Matthew, 2016). Mathematics anxiety is a crucial issue in the area of mathematics education and is seriously affecting students' achievement. In the Nigerian context mathematics anxiety is crucial issue especially in the northern part of the country and in particular Sokoto state. As highlighted mathematics anxiety is affecting students' achievement and this issue is associated with level of mathematics anxiety. Despite this, the mathematics educator remained silent in this area in Sokoto state. Therefore, the researcher found it necessary to explore in this area in other to draw the attention of teachers and policy marker to take necessary action that will overcome the problem. The study investigated the level of mathematics anxiety, gender differences and relationship between mathematics anxiety and students' achievement that will help the teachers and stockholders to find the necessary solution to this disturbing and terrifying situation of mathematics education, especially in the secondary schools.

Theoretical Framework

To identify the causes of mathematics anxiety as well as some possible strategies for generating and sustaining interest, this research employed a theoretical framework through social cognitive theory which serves as the basis of identifying; causes, effect, and remedies

Bandura (1986) reported that social cognitive theory is part of behaviourism. Bandura started developing the theory by criticizing weakness of behaviourism. These weaknesses are; limitation of range of behaviour to

laboratory type setting only, failure to cater for the acquisition of new responses to particular situations and focusing only on direct learning whereby learner perform response and received consequences. Furthermore, social cognitive theory highlights that an individuals' learning occurs in social environments by observing others' beliefs, attitude, skills, and people acquire knowledge of rules so also people learned useful and appropriate behaviour by looking into the model and the consequences of modelled behaviour.

There are three types of model behaviours namely; direct, symbolic and synthesized modelling (Bandura, 1986). Direct modelling includes imitate particular model's behaviour or live model. For example, an individual may have direct contact with the social environment such as friends, teachers and family members, in this case an individual may tend to imitate directly from them some negative behaviours with regard to mathematics such as; mathematics anxiety, negative or positive attitude toward mathematics. In a class where the majority of the peers' hate mathematics, there is a likelihood for the student interacting with such group to copy their behaviour directly and hate mathematics. Symbolic modelling comprises displayed character on television, textbooks and anything that is pictorial in nature. For example, using only male's pictures in demonstrating mathematics phenomenon may lead to the female students to learn or perceived mathematics as difficult and only meant for the male. And this could result in mathematics anxiety. Synthesized modelling has to do with generating behaviour by mixing a portion of the observed act. For instance, the student may completely hate mathematics by observing teachers' or peers' negative behaviour. However, peers' and teachers' positive behaviour and speech may yield or influence students' interest in mathematics and reduces the level of anxiety in the subject.

Problem Statement

Zalmon & Wonu, (2017), stated that mathematics is a pre-requisite for admission into science related subject and technology base course in Nigeria. However, the regulation in Nigeria education system for one to be given admission into university must have five Credits passes in the related course of study with mathematics and English language inclusive. Emmanuel et al. (2015) reported the disturbing evidence of poor achievement of students in mathematics examination at each level of education in Nigeria. This is in

accordance with the annual report of west African examination council (WEAC) of Sokoto state for decade which portrayed massive Failure in mathematics subject. Emmanuel et al. (2013), stated that feeling distressed with a higher level of mathematics anxiety is one of the contributing factors to the poor achievement of mathematics examination in both WEAC and national examination council NECO in Nigeria. NECO and WAEC are among the well-recognized examination bodies in Nigeria at the secondary level. However, national business and technical examination board NABTEB is another examination body in charge of technical schools' /colleges examination at the same level

Research objectives

This study is aimed at identifying the level of mathematics anxiety among senior secondary school two in Sokoto state, Nigeria, the relationship between mathematics anxiety and students' examination score and gender differences in terms of mathematics anxiety and investigation into the sub-categories of mathematics anxiety symptoms.

Methodology

The research is quantitative research approach in nature, the researcher developed cognitive, emotional and physical symptoms CEP_MAR mathematics anxiety rating scale which was adapted from Godbey (1997) MAR. The instrument was given to the two experts in the Department of science, mathematics education and creative multimedia, faculty of education UTM. Malaysia. The reliability test had an alpha score of .0810 which considered accepted. The study comprises 57 males and 45 female participants.

Participant Recruitment

One hundred and two participants were used among which forty-five (45) were female and fifty-seven 57 were male, the sample was made purposively because it's one of the mixed secondary schools in Sokoto state to investigate the level of mathematics anxiety in Shehu Shagari college of education staff secondary school in Sokoto state and further studies to use the data for in-depth interview to identify the most anxious participants

Findings

Data Analysis of the participant

The study comprises, the analysis of the participants of this research which includes; gender,age and responses of the participants.

Table 1: Gender analysis of the participants

		Frequency	Percent
Valid	Male	57	55.9
	Female	45	44.1
	Total	**102**	**100.0**

Table 1 is the analysis of gender of the study which indicated 57 were male and 45 were female that participated in the study.

Table 2: Age of the participants

		Frequency	Percent
Valid	15 <16	13	12.7
	16 < 17	30	29.4
	17 < 18	59	57.8
	Total	**102**	**100.0**

Table 2. is the age analysis of respondents that participated in the study as follows; 15<16 age with 13participants,16<17 age with 30 participants,17<18 age with 59 participants,

Mathematics anxiety analysis

This study aimed at achieving three research objectives .

Therefore the researcher aimed at analyzing ;

I. the level of mathematics anxiety categorically as; low, moderate and high among 15-18-year-olds students from the students' perspectives in Sokoto state.

II. a significant difference between students' mathematics anxiety and students' gender

III. the relationship between mathematics anxiety and students' achievement

Level of mathematics anxiety Analysis

Zakaria & Nordin (2008), categorized mathematics anxiety score into three groups namely; low, moderate and high group respectively using percentile. Mathematics anxiety means score ranging between 33% and 67% considered to be a moderate group. 33% above and below the moderate group considered to be low and high anxiety group respectively. The data were analyzed using SPSS to find mathematics anxiety means score for each participant. Table 3.is average means score of the overall participants.

Table 3: Average mean score of mathematics anxiety

N	Valid	102
	Missing	0
Mean		3.5425

Table 3. shows the average mean score of 3.5425 out of scale of 5 of the total participants have excessive fear of mathematics anxiety

Mathematics anxiety and gender analysis

H_1 is there any significant differences across the gender and mathematics anxiety?

Table 4: Group descriptive statistics and mathematics anxiety Independent sample t-test

	Gender	**N**	**Mean**	**Std. Deviation**	**t-test**	**Sig.(2-tiled)**
Math Anxiety X score	male	57	3.2982	.83970		
	female	45	3.8519	.52491	-3.864	.000198

Table 4 showed that t-test indicate that there is significant difference at $t = -3.864;\ p<0.05$ between the level mathematics anxiety of male and female, this indicated that the level of mathematics anxiety is affected by gender, furthermore the result indicated that female has higher level of mathematics anxiety than male students in secondary school of Sokoto state

Table 5: Relationship between mathematics anxiety and student' Achievement on sub-categories of symptom

Symptoms	t	p	Degree of freedom	effect
Cognitive symptoms	-3.648	0.00042	P < 0.01	Inverse difference
Emotional symptoms	-0.028	0.97811	p> 0.01	No difference
Physical Symptoms	-2.422	0.17217	p> 0.01	No difference

Analysis of mathematics anxiety and Mathematics achievement H_1 is the any significant relationship between mathematics anxiety and student mathematics score?

Table 5 showcase that there is a significant inverse relationship between mathematics anxiety and students' achievement with $r_{(102)} = -0.450$, $p=0.001$ $(p<1)$. This indicated that the student with a low level of mathematics anxiety performs extremely higher than that of higher level of mathematics anxiety and vice versa. In another regard the sub-categories of symptom in table Vb indicated that both cognitive and emotional symptoms have inverse direct effective on students' achievement in terms of mathematics anxiety while physical symptoms indicated no singnificant relationship . Figure I indicated the normality of the data.

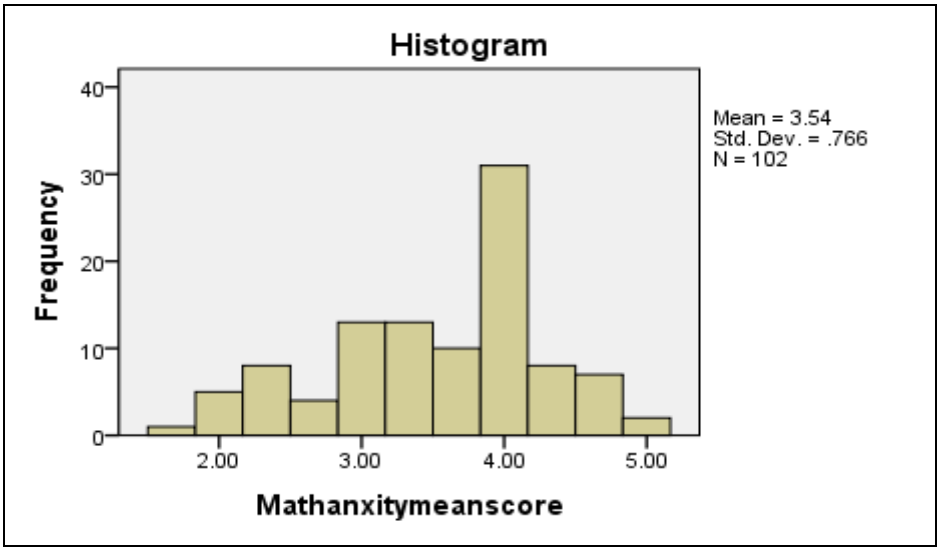

Figure 1: normally distributed data

Figure 1 show that the mathematics anxiety is normal distributed across the learner

Table 6: comparison between mathematics anxiety and mathematics achievement (**Descriptive Statistics)**

	Mean	**Std. Deviation**	**N**
Math Score	33.35	17.166	102
Math Anxiety X score	3.5425	.76635	102

Table 6. shows the comparison between average maths score 33.35 and 3.5425 of out of 100 and scale of 5 respectively of the participants

Table 7: Difference between mathematics anxiety and student' gender on sub categories of symptoms

Difference between mathematics anxiety subcategories and student' gender				
Symptoms	r(102)	p	Degree of freedom	effect
Cognitive symptoms	-0.614	0.00000	P < 0.05	There is difference
Emotional symptoms	0.03	0.97481	P > 0.05	No difference
Physical Symptoms	-0.314	0.01295	P < 0.05	There is difference

Table 7 showcase difference between mathematics anxiety subcategories and student' gender as follows;

With regard to cognitive and physical symptoms there is difference while with regards to emotional no differences identify

Discussion

The level of mathematics anxiety categorically as; low, medium high and high.

What is the level of mathematics anxiety of 15-18-year-olds students in Sokoto state from the students' perspectives?

From the CEP-MAR the findings revealed that mathematics anxiety mean Score of the total participants was *3.54* which indicated that, about 70.08% out of the total participants has higher level of mathematics anxiety this is in line with the findings of Arigbabu, Tobih, & Arigbabu, (2016), that about 72.5% of the total participant in their research conducted in Nigeria has higher level of mathematics anxiety.

A significant difference between students' mathematics anxiety and students' gender

However the findings in table IV indicated a significant difference between mathematics anxiety and students' gender at t = -3.864, p<0.05. this showed that the level of mathematics anxiety of female student happens to be higher than that of their counterpart male students. both emotional and physical symptoms indicated no significant difference on gender in terms of mathematics anxiety while cognitive symptoms indicated singnificant difference. This is in similar findings with Arigbabu et al., (2016) that mathematics anxiety is gender sensitive. . In UK Hunt et al., (2011) found that the level of the mathematics of female students is higher than that of male students but in Malaysia Zakaria et al., (2012) found that there is no significant difference across the gender. This is perhaps in the Malaysian context, a strategic care were put in place in catering the issue of mathematics anxiety and female students were given full opportuinity and support to participate in the educational sector. However, in the Nigerian context, especially in the northern part of Nigeria and in particular Sokoto state, it has become a habit in the region once a female student got married her husband will not support her to further her education, unless on some cases. This can be one of the major reason why the female student has a higher level of mathematics anxiety because there is limited zeal for further education.

The relationship between mathematics anxiety and students' Achievement

In another regard table V indicated that there is inversed relationship between mathematics anxiety and student achievement with $r_{(102)} = -0.450, p=0.001 (p<1)$. The study indicated that, the student with higher level of mathematics anxiety perform extremely low in mathematics achievement and vice versa. And both cognitive and emotional symptoms have inverse relationship on students' achievement in terms of mathematics anxiety while physical symptoms indicated no singnificant relationship. this is in support with findings of Puteh & Khalin, (2016); Lyons & Beilock (2012) conducted, that there is negative relationship between mathematics anxiety and students' achievement in secondary school. This shows in this context the inverse relations ship occurred between mathematics anxiety and students' achievement. in sokoto state therefore the level of mathematics anxiety is a

great issue of discussion that needs to be given higher consideration. The findings demonstrated that mathematics anxiety has a direct effect on students ahievement. This confirmed the Sokoto state interim report on education (Sokoto, 2016) which stressed that the education sector suffered from shortage of qualified mathematics teachers, instructional materials, and conducieve learning environment. These may be some of the factors responsible for the excessive level of mathematics anxiety in the state.

Implications of the study

It is advised that teacher should strive to investigate the factors responsible to the mathematics anxiety and some possible ways to overcome the problems. The study proved that mathematics anxiety is affecting students' achievement. Teachers also should provide a special intervention to the female student in terms of mathematics anxiety.

Suggestion for Further Study

The following are some suggestions figure out by the researcher for the further study

I. Researchers should look at another social factors that has direct influence on mathematics anxiety such as parent and community role in the intensifying mathematics anxiety.
II. Research should look at the effect of the used of technology in reducing the level of mathematics anxiety such as Geogebra, scratch, google sketch up and so on.

Reference

Abdullah,Y & Muhammad,Y.A (2024). Exploring Clusters of Novice Programmers Anxiety-Induced Behaviors During Block- and Text-Based Coding: A Predictive and Moderation Analysis of Programming Quality and Error Debugging Skills. Journal of Educational Computing Research *68*(1), 69-84. DOI: 10.1177/07356331241270707

Arigbabu, Tobih, & Arigbabu. (2016). Assessment of University Undergraduate Students' Mathematics Anxiety and Conception of

Mathematics. In *Proceedings of the 2nd Interdisciplinary Conference of TASUED-UCC 2016 22ND August, 2016 25st August, 2016 at Tai Solarin University of Education, Nigeria. ASSESSMENT* (pp. 1192-1207).

Ashcraft, M. H., & Moore, A. M. (2009). Mathematics Anxiety and the Affective Drop in Performance. *Journal of Psychoeducational Assessment*, *27*(3), 197-205. https://doi.org/10.1177/0734282908330580

Barrows, J., Dunn, S., & Lloyd, C. A. (2013). Anxiety, Self-Efficacy, and College Exam Grades. *Universal Journal of Educational Research*, *1*(3), 204-208. https://doi.org/10.13189/ujer.2013.010310

Beilock, S. L., Gunderson, E. A., Ramirez, G., & Levine, S. C. (2010). Female teachers' math anxiety affects girls' math achievement. *Proceedings of the National Academy of Sciences*, *107*(5), 1860□1863. https://doi.org/10.1073/pnas.0910967107

Devine, A., Fawcett, K., Szűcs, D., & Dowker, A. (2012). Gender differences in mathematics anxiety and the relation to mathematics performance while controlling for test anxiety. *Behavioural and Brain Functions*, *8*(1), 33. https://doi.org/10.1186/1744-9081-8-33

Emmanuel, O., Abonyi, O. S., Abonyi, O. S., & Omebe, C. (2015). Effects of Problem-Based Learning Approach on Junior Secondary School Students Achievement in Algebra. *Journal of the Science Teachers Association of Nigeria*, *50*(July).

Emmanuel, O. O., Ngozi, U. P., & Nwoga, N. A. (2013). Effects of Rational Emotive Behaviour Therapy and Emotional Intelligence on Mathematics Anxiety of in-School Adolescents in Owerri Municipal Nigeria. *European Journal of Sustainable Development*, *2*(3), 85□98. https://doi.org/10.14207/ejsd.2013.v2n3p85

Escalera-Chávez, M. E., Moreno-García, E., García-Santillán, A., & Rojas-Kramer, C. A. (2017). Factors that promote anxiety toward math on high school students. *Eurasia Journal of Mathematics, Science and*

Technology Education, *13*(1), 189□199. https://doi.org/10.12973/eurasia.2017.00611a

Lindskog, M., Winman, A., & Poom, L. (2017). Individual differences in nonverbal number skills predict math anxiety. *Cognition*, *159*(1), 156-162. https://doi.org/10.1016/j.cognition.2016.11.014

Lyons, I. M., & Beilock, S. L. (2012). Mathematics anxiety: Separating the math from the anxiety. *Cerebral Cortex*, *22*(9), 2102□2110. https://doi.org/10.1093/cercor/bhr289

Matthew, A. (2016). *Students' Attitude and Self-Concept as Correlates of Their Achievement in Senior Secondary School Mathematics in Ankpa Local Government Area of Kogi State.* University of Nigeria, Nsukka.

Olatunde, Y. P. (2009). Mathematics Anxiety and Academic Achievements in Some Selected Senior Secondary Schools in Southwestern Nigeria. *Pakistan Journal of Social Sciences*.

Puteh, M., & Khalin, S. Z. (2016). Mathematics Anxiety and Its Relationship with the Achievement of Secondary Students in Mathematics Anxiety and Its Relationship with the Achievement of Secondary Students in Malaysia. *Research Gate*, *6*(2), 119□122. https://doi.org/10.7763/IJSSH.2016.V6.630

Ramon, O. G., & Adepeju, O. D. (2015). Attitude, Mathematics Anxiety and Self Efficacy of Preservice Teachers as Determinant of Performance In Primary School Mathematics. *Journal of Research in Science Education*, *1*(1), 232□245.

Stoehr, K. J. (2017). Mathematics Anxiety. *Journal of Teacher Education*, *68*(1), 69-84. https://doi.org/10.1177/0022487116676316

Whyte, J., & Anthony, G. (2012). Maths Anxiety: The Fear Factor in the Mathematics Classroom. *New Zealand Journal of Teachers*, *9*(1), 6-15. Retrieved from http://www.teacherswork.ac.nz/journal/volume9_issue1/whyte.pdf

Zakaria, E., & Nordin, N. M. (2008). The effects of mathematics anxiety on matriculation students as related to motivation and achievement.

Eurasia Journal of Mathematics, Science and Technology Education, *4*(1), 27-30.

Zalmon, I. G., & Wonu, N. (2017). Comparative Analysis of Student Mathematics Achievement in West African Senior Secondary. *European Journal of Research and Reflection in Educational Sciences*, *5*(1), 24-31.

Cognitive, emotional and physical symptom mathematics anxiety rating scale

CEP-MAR

Sex: Male ☐ Female ☐ Last math' s Exams scores_____

Identifications Number☐☐☐☐☐☐☐☐

Age 15-16 ☐ 16-17 ☐ 17-18 ☐

Symptoms	**S/no**	**Item**	**1 Strongly Disagree**	**2 Disagree**	**3 No Option**	**4 Agree**	**5 Strongly Agree**
Cognitive	1	I get a sinking feeling when I think of trying hard math exercise.					
	2	I remain anxious and thinking when I remember my past failure in mathematics					
	3	Whenever I took mathematics examination, I remain anxious and thinking the outcomes of my examination result.					
	4	I feel uneasy whenever I think mathematics is a difficult Subject.					
	5	I find it difficult to apply mathematics knowledge to solve the complex problem of a real-life situation.					
	6 *	I usually do not worry about my ability to solve mathematics exercise.					
	7	My mind goes blank and unable to think clearly when doing mathematics.					
Emotional	8*	I almost never get uptight while taking mathematics exams.					
	9	Mathematics quiz makes me feel uncomfortable.					
	10	Mathematics activities make me feel uneasy.					
	11*	It would not bother me at all to take more					

		mathematics classes.					
	12*	I have usually been at ease during a mathematics test.					
	13*	I have usually been at ease in a mathematics lesson.					
	14	I feel unhappy when I see my mathematics teacher					
Physical	15	I am experiencing sweating when dealing with mathematics					
	16	Sometimes mathematics tasks made me chewing my pen or biting my nail					
	17	I sometimes experience difficulty breathing during mathematics examination.					
	18	Sometimes I experienced dry mouth when asked to explain how to solve mathematics task in the class					
	19*	I never change place when taking mathematics lesson					
	20*	I remain smiling when taking mathematics exercises					

*is indicating positive responses and were reversed before analysing the data