



ATTITUDE OF TEACHERS TOWARDS PUPILS WITH AUTISM SPECTRUM DISORDERS (ASD) IN SELECTED PRIMARY SCHOOLS IN RIVERS STATE, NIGERIA

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Abstract:

This study investigated the attitude of teachers towards pupils with autism spectrum disorder (ASD) in selected primary schools in Rivers State, Nigeria. The relationship between teacher's attitude and their gender and age were also investigated. The study employed descriptive survey research design and was guided by three research questions and two hypotheses. The population consisted of all the teachers in seven mainstream schools for pupils with ASD and two special education schools for children disabilities including ASD in Rivers State. Using block sampling technique, the total population was one hundred and twenty-one teachers. Instrument for data collection was a questionnaire titled Teachers Attitude Scale (TAS). Data obtained from these questionnaires were analyzed using mean and standard deviation for the research questions while chi-square statistic, analyzed at 0.05 level of significance, was used for testing the hypotheses. Cramer's V test was used as a post-test to determine the strength of the associations found using chi-square. Results of findings showed that the attitude of teachers towards pupils in these schools were positive, with female teachers showing more propensity to exhibiting positive attitudes than male teachers. Teacher's gender had significant influence on teacher's attitude towards these children but teacher's age did not have significant influence on teacher's attitude towards pupils with ASD.

Keywords: teacher, attitude, autism spectrum disorders, gender

1. Introduction

Autism Spectrum Disorder (ASD) has been identified as the fastest growing disability among children in most countries (Brock, Huber, Carter, Juarez & Waren, 2014; Sugita,

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2016). WHO (2018) clearly indicated that epidemiological studies conducted over the past 50 years showed a marked increase in the prevalence of ASD, globally. The early onset of ASD and the uniqueness of its symptoms in individual sufferers make the management of children with ASD a challenging task. This is more evident in school settings where symptoms such as deficit in social and communication skills and hypersensitivity make such children withdraw from the social interactions required for learning to take place. Consequently, WHO (2018) indicated that ASD negatively influences a child's educational and social attainment. However, this does not imply that such children are uneducable but rather can be neglected. Garcia (2003) opined that the process of facilitating the learning of these children with ASD is a complex and poorly understood area of education, even in mainstream schools. Consequently, teachers are often overwhelmed and perplexed with meeting the educational needs of these children. For this reason, reviewing the readiness of teachers to face the global increase of pupils with ASD due to the recorded prevalence of ASD, is crucial.

1.1 Statement of Problem

Attitude of people towards people with disability has been identified as the greatest burden borne by people with disability. This is because the propensity for society to be impatient towards as well as devalue people with disability is high and this often results in negative responses to such persons. For this reason, the attitude of the significant other in the society is crucial to the progressive living of people with disabilities.

With the growing prevalence of ASD, a review of the effectiveness with which teachers in schools manage children with ASD in Nigeria, is crucial. This is very critical as majority of the adult populace in Nigeria do not have adequate knowledge of ASD and their management (Okoroikpa & Oluka, 2017). Agomoh and Kanu (2015) also highlighted that there is an enormous population of teachers who have no training in special needs education in Nigeria. Therefore, most teachers are not educationally equipped to attend to the challenges of working with children with disabilities, including those with ASD. Consequently, where the awareness of ASD and its management are lacking, teachers may fail to effectively manage children with ASD in their classes. Such lack of knowledge can impact on the attitudes presented by the significant others like teachers, when relating with children with ASD. This study therefore focused on investigating the attitude of primary school teachers towards pupil with ASD and the relationship between teachers' attitudes and their gender and age.

1.2 Purpose of Study

This study investigated the attitude of teachers toward pupils with autism spectrum disorder (ASD) and the relationship between teachers' attitudes and their gender and age, in selected primary schools in Rivers State, Nigeria. Specifically, the objectives of this study were to:

- Evaluate the attitude of primary school teachers towards pupils with ASD.

- Investigate if the attitude of primary school teachers towards pupils with ASD is influenced by teacher's gender.
- Ascertain to what extent the attitude of primary school teachers towards pupils with ASD are influenced by teacher's age.

1.3 Research Questions

As a guide to this study, three research questions were examined. They were:

- 1) What is the attitude of primary school teachers towards pupils with ASD?
- 2) Does teacher's gender influence the attitude of primary school teachers towards pupils with ASD?
- 3) Is the attitude of primary school teachers towards pupils with ASD influenced by teacher's age?

1.4 Hypotheses

This study examined two hypotheses which were:

H₁: The attitude of primary school teachers towards pupils with ASD is not significantly influenced by teacher's gender.

H₂: The attitude of primary school teachers towards pupils with ASD is not significantly influenced by teacher's age.

2. Literature Review

2.1 Autism

Autism is a bio-neurological developmental disability that appears in infancy, before the age of three. National Autism Association (2018) states that it is marked by severe negative impact on a child's brain development in the areas of social interaction, communication skills, and cognitive function. Consequently, children with autism typically have problems in some or all spheres of communication, whether verbal or non-verbal, as well as social interaction. It is one of the pervasive emotional behavior disorders, which is characterized by "*extreme withdrawal, self-stimulation, cognitive defects and language disorder*" (Agomoh & Kanu, 2011:112). It is important to note that currently, due to the broadening of the definition of autism, autism is not considered as a single disorder, but a spectrum of closely related disorders with shared core symptoms. Consequently, each of these disorders can be placed along a continuum ranging from milder to more severe based on the level of impairment in function skills such as communication, cognitive abilities and social interaction. However, despite shared symptoms, there is a wide degree of variation in its manifestation and effect on autistic individuals. For this reason, the general name for this disorder was changed to Autism Spectrum Disorders (ASD) to cover the diagnostic labels of autistic disorder, Asperger's syndrome, Rett syndrome, Childhood Disintegrative Disorder and Pervasive Developmental Disorder-Not otherwise specified (American Psychiatric Association, 2000). Although every sufferer on the spectrum is unique with differing needs,

individuals with any of the autism spectrum disorders have problems to some degree with social skills, empathy, communication and flexible behavior and their developmental disabilities may range from mild to severe. Research has shown that as a bio-neurological disorder, ASD affects the processing of information in the brain which results in varying degrees of challenges towards schools and learning and hence indicate that children with ASD require special considerations in education to attend to their special educational needs.

2.2 The Concept of Attitudes

Attitude has been defined in various ways. It is considered as favorable or unfavorable reaction towards an object and related to ones beliefs, feelings and behavior (Gurney, 2007). Eiser (2008) explained that attitudes are a summation of individual evaluative beliefs, experiences and/or perceptions which are reflected in outward behaviors. Richardson (2008) also discoursed that attitude is a subset of a group of constructs that name, define, and describe the structure and content of mental state that are thought to drive a person's action. Allport (1967, cited in Richardson, 2008:52) defined attitude as "*a mental and neural state of readiness, organization through experience and influenced by belief, which exerts a directive or dynamic influence on a person's response to all objects or situations which are related to the attitude*". These various views of attitude show that attitude indeed influences a person's actions, decisions and choices in regard to response to stimuli, since it is an individual's dominant propensity to respond favorably or unfavorably to an object or situation. This makes attitude a critical factor in seeking to understand the teaching/learning process in a classroom. As Richardson (2008) explained, attitude is one of the important concepts in understanding teacher's thought processes, classroom practices, change and learning to teach.

The cognitive dissonance theory (CDT), which was propounded by Leon Festinger in 1957, explains attitude formation, change focus and how behavior can determine attitude (Brehm, 2001). Cognition refers to individual perception and reasoning as regarding one's beliefs, behaviors and attitude. CDT deals with inconsistencies that arises between related beliefs, knowledge, awareness and personal evaluation which leads to attitude formation or change. It theorizes on the reduction of the dissonance that arises due to the inconsistencies in order to maintain a state of equilibrium. Such desire for reduction arises from the discomfort which is caused by the dissonance. The intensity of the desire to reduce the dissonance is however affected by various factors which include the importance of the source of dissonance and the ability of the individual to make reasonable change (Harmon-Jones & Harmon-Jones, 2007). This implies that where an individual enjoys some rewards due to a dissonance, the desire to reduce the dissonance will not arise. Base on this, there is therefore the need to ensure that rewards for desirable attitudes are greater and more appealing than the perceived rewards from undesirable attitudes. Consequently, the need for the right attitude must be strong and compelling enough to effect and maintain the change in attitude. This theory is seen playing out daily in the lives of people where choices of attitudes towards an object are weighed against

the rewards expected. In a work place such as a school, staff attitude towards customers (pupils) are influenced by mainly the need to keep the job and the satisfaction they get from the teaching process. Hence attitude is suggests that attitude is affected by both the affective and cognitive components of a person (Brehm, 2001) which could emanate from person to person relationships and personal evaluations of the object of attitude. This theory is crucial in examining teachers' attitude towards pupils with ASD since the person to person relationship between teachers and students as well as teachers evaluation of their students and the ease with which they can achieve the teacher/learner relationship generally affects their attitudes on the job and in relation to their pupils.

2.3 Attitude of Teachers towards Pupils with ASD

Teachers' attitude is a critical consideration with regards to teacher effectiveness as it provides a driving force for classroom actions and teaching process. As Hobbs and Westling (1998) opined, teachers' attitude, whether positive or negative, exerts a greater impact on the outcome of any educational attempt as these attitudes affect the behaviors teachers put up towards students, the classroom climate and indeed the whole educational process within the school. While positive attitudes such as openness, acceptance, empathy, understanding and tolerance translate to better instructional approaches, positive teacher beliefs and teacher-learner interactions, negative attitudes serve as a barrier to teacher-learner interactions and ultimately impact negatively on the learning process. Marzano (2012) clearly opined that "without positive attitudes, students have little chance of learning effectively". UNESCO (2008) acknowledges this view as critical in special education as it indicated that attitudinal factors are crucial in achieving effective education for children with special needs since attitudes are predilections towards behavior.

Teachers' attitude to children with ASD is an important factor in the management of these children. Children with ASD often present unique challenges to schools and teachers which could results in teachers developing various attitudes towards them due to their inability to meet their needs, especially when such teachers lack the relevant training. Furthermore, as indicated by WHO (2018) the symptoms of ASD generally places them in a disadvantage position in social interactions and this can lead to negative responses from those they interact with, including teachers. Such negative responses complicate their challenges as it hinders the possibility of improving their social and communication skills, hence further marring their learning and general development endeavors. The fact that severe types of ASD often suffer from numerous co-morbid medical conditions such as sensory integration dysfunction and allergies, further complicate their care and management and possibly heightens the possibility of attracting negative feedback during social interactions, including relationships with their teachers. These points provide the basis for this study to understand teachers' attitude towards children with ASD.

Furthermore, Sugita (2016) focused on current trends in psychological and educational approaches for training and teaching students with autism in California. This

study showed that with the increases noticed in the prevalence of autism, there is also *“an increased need for expertise in the field of education, who have knowledge of the psychological and educational practices for training and teaching children with ASD”*. It identified teachers as a crucial factor in effectively managing children with ASD as they provide the pivotal for interdisciplinary collaboration, progress monitoring and academic social interaction skills training. From this study, it is clear that attempts seeking to improve the chances of learning for children with ASD in schools should address teachers, their awareness of ASD and teaching quality as crucial factors. Sugita (2016) study therefore gives credence to the focus of this study which examined teachers, particularly teachers’ attitudes, towards pupils with ASD in selected primary schools in Rivers State, Nigeria.

Furthermore, Gibbons, Cihak, Mynatt and Wilhoit (2016) investigated faculty and students’ attitudes towards postsecondary education for students with intellectual disabilities and autism. This study examined attitude of lecturers and student towards the inclusion of children with intellectual disabilities (ID) and autism in regular university education. Findings indicated that while students were more willing to embrace their inclusion, faculty participants (lectures) were more skeptical. The study further showed that lecturers and students who had a previous personal contact with persons with ID and autism showed a more positive attitude towards their inclusion. This indicates the impact of awareness on individual’s attitudes since people having awareness through previous contacts showed more willingness than those without previous contacts. This study therefore focused on schools (mainstreamed schools for pupils with ASD and special education schools) where the awareness of ASD has been created among teachers.

2.4 Influence of Teacher’s Gender on Teacher’s Attitude

The influence of gender on performance is often viewed on the attitudinal differences between men and women as well as the impact of the traditional roles of men and women on their professional outlook. Alufohai and Ibhafidon (2015) argued that women in Nigeria are marginalized when compared with their male counterparts. This hinders women in their professional growth. However, this does not directly affect their attitude towards their job although Alufohai and Ibhafidon (2015) stated that it leads to women becoming less competent and experienced at their jobs.

Beyond this argument which is based on the impact of culture and tradition on the relationship between gender and job performance, other studies have also shown that teacher’s gender impacts on the effectiveness of teachers. According to Martin and Smith (2001) women tend to perform better in teaching than their male counterparts. This view is supported by Zuzovsky (2003) research in Israel which showed female teachers to impact learning better than male teachers. This view can be linked to the natural tendencies of females to train children. Other studies however, did not support the view that gender affects performance. Akiri and Ugborugbo (2008) stated that there was no significant relationship between gender and work performance. Specifically, they indicated that teacher’s gender had no influence on teacher’s impact on students’

academic performance. Shatri (2017) also indicated that there was no strong relationship between gender and teachers' attitudes. Martin, Yin and Mayall (2006) and Salthouse (2000), however indicated that the impact of gender is weakly related to teacher's effectiveness and attitudes. Kong (2008), on the other hand, conclusively indicated that no research has connected students' test results to teacher's gender.

Consequently, the available empirical evidences does not allow an accurate determination of the correlation between teacher's gender and students' learning outcomes. This leaves room for further investigations on the impact of teachers' gender on their performances. This study therefore provided further insight in this area as one of its research questions investigated the influence of teachers' gender on teachers' attitude towards children with ASD.

2.5 Influence of Teacher's Age on Teacher's Attitude

Studies on the relationship between teacher's age and students' academic achievements resulted in different conclusions. Some studies indicated that there is a significant connection between teacher's age and their effectiveness. Sloane and Kelly (2005) using three classifications, young, middle and old age, identified that middle age teachers were more effective when compared to the young and old age. This conclusion did not show a straight line relationship between teacher's age and teacher's effectiveness. Alufohai and Ibhafidon (2015) also rated old teachers lower on teaching skills in comparison with young and middle age teachers. Accordingly, Gunbayi (2007) explained that this difference can be attributed to the propensity for younger people to value their employment and have a more positive outlook and commitment to their jobs than older people. Dehanty (2000) however opined that there was no significant relationship between teachers' age and their effectiveness. This view was supported by Ladi (2008) meta-analysis which showed that age and job performance was principally unrelated. Adeyemi (2007) study of teachers' performance in selected schools in Ibadan also showed that there was no significant relationship between teachers' age and their effectiveness.

On the other hand, Salthouse (2000) indicated an inverse relationship between teacher's age and effectiveness using the decremented theory of aging which links increase in age to a correspondent deterioration in abilities which include various psychomotor skills. This view was supported by Hunter and Schmidt (2000) that with aging, a wide range of cognitive and psychomotor abilities deteriorate. Such abilities as memory, reasoning and various spatial abilities are affected by age. These studies therefore argue that teacher's age is negatively correlated to teacher's effectiveness.

Alufohai and Ibhafidon (2015) provided further insight on the impact of teacher's age on teacher's effectiveness. He explained that the impact of age is crucially a reflection of the perception of the students. This implies that the greater the age gap between the teachers and their students, the psychologically distant apart the students' perceive of the teacher and the lesser the propensity for cordial relationship to exist between the teacher and the students. Such perception may affect the attitude of the students to the teachers and vice-versa.

These divergent views on the influence of teacher's age on teacher's effectiveness make generalization of conclusions impossible. This leaves a gap for further investigations in this area. This study investigated the influence of teacher's age on teacher's attitude towards children with ASD.

3. Methodology

3.1 Research Design and Participants

The study adopted a descriptive survey research design. The participants comprised all the teachers in seven primary schools which practice mainstreaming for pupils with ASD and two primary schools that are special education schools for children needing special education in Rivers State. The total population in the mainstream school consisted of ninety-three (93) teachers while the total population in the special schools was twenty-eight (28) teachers. This resulted in a total population of one hundred and twenty one (121) teachers. Block sampling techniques was used in this study hence the sample consisted of the whole population of one hundred and twenty one (121) teachers.

3.2 Instrument for Data Collection

A validated questionnaire titled Teacher Attitude Scale (TAS) was administered to the teachers. The TAS consisted of open and closed ended questions distributed in three sections. Section A was made up of five (5) questions that were focused on demographic data of participants. Section B consisted of seven (7) questions that sought information on the extent of teachers' awareness of ASD. Sections C was made up of twenty-five (25) close-ended questions on teachers' attitudes towards pupils with ASD. The section was presented as a 4-point Likert scale of strongly agree (AS), Agree (A), Disagree (D) and Strongly Disagree (SD).

3.3 Administration of the Instrument

The instruments were administered by a face to face method of questionnaire administration with the intention of retrieving the instruments on the spot. However, allowance was given to participants who wished to return their responses later on an agreed date, within the time frame of the research. The researcher, with the help of four (4) research assistances who were trained by the researcher assisted in administering the TAS to the teachers.

3.4 Method of Data Analysis

Data collected were analyzed using mean and standard deviation for the research questions while Chi-square was used for testing the hypotheses. Cramer's V test was used as a post-test to determine the strength of the associations after the chi-square had determined the significance of the association. The results from the Chi-square were analyzed for statistical significance at 0.05 alpha level while a criterion mean of 2.5 was used whether to accept or reject items on the questionnaire. The calculated value of the

standard deviation was used to determine variability of the means whether high or low. Calculations were done using Statistical Package for Social Sciences (SPSS).

4. Results and Discussion

4.1 Descriptive Data

One hundred and sixteen respondents were received out of one hundred and twenty-one participants. This gave a percentage response of approximately 96%. In addition, all respondents indicated an awareness of ASD and their management. Hence this study was carried out among teachers' with reasonable awareness of ASD and their management.

Table 1 shows the responses to questions in the questionnaires that indicated teachers' attitude towards children with ASD.

Table 1: Mean Scores of the General Attitude of Teachers towards Pupils with ASD

S/N	Item	Total Number of Response	Mean	Standard Deviation	Decision
Positive Attitude Questions					
1	I do not think children with ASD are responsible for their behaviors.	116	2.88	0.577	Accept
2	It is always important for me to always have empathy for all my pupils including those with ASD.	116	3.06	0.636	Accept
3	My attitude is important in helping a pupil with ASD.	116	3.10	0.715	Accept
4	A child with ASD should be tolerated at all times.	116	2.98	0.527	Accept
5	I should be patient with children with ASD.	116	3.00	0.646	Accept
6	I am of the opinion that children with ASD should not be blamed when they do not behave as expected of them.	116	2.98	0.646	Accept
7	Children with ASD should not be stigmatized.	116	3.13	0.612	Accept
8	I should be open to children with ASD just like I am open to other children.	116	2.81	0.558	Accept
9	My acceptance of children with ASD is very important in helping them to learn in class.	116	2.95	0.696	Accept
10	I should give pupils with ASD my maximum attention.	116	2.93	0.600	Accept
11	I do not allow other pupils in class to nickname children with ASD base on their character traits.	116	3.08	0.635	Accept

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12	I find time to attend to each child personally, despite my busy schedule.	116	2.87	0.612	Accept
13	I use various teaching strategies to help pupils with ASD learn in class.	116	2.96	0.596	Accept
14	I do not use negative feedback to help a pupil with ASD to improve his behavior.	116	3.03	0.632	Accept
Negative Attitude Questions					
15	Children with ASD are difficult to teach.	116	1.74	1.072	Reject
16	Teaching children with ASD is burdensome.	116	2.03	1.153	Reject
17	I do not tolerate the misbehaviors of children with ASD.	116	1.78	1.102	Reject
18	Children with ASD should be punished when they fail to learn with their peers.	116	1.74	1.072	Reject
19	Children with ASD constitute distractions to the classroom learning progress.	116	1.91	1.108	Reject
20	A child with ASD should be Isolated from other children.	116	1.74	1.072	Reject
21	Ignoring a child with ASD is a good way of relating to him or her.	116	1.91	1.108	Reject
22	Sometimes I get tired with the attitude of pupils with ASD.	116	1.97	1.130	Reject
23	It is difficult to build positive relationship with pupils with ASD.	116	1.91	1.108	Reject
24	I sometimes wish ASD pupils will be never be in my class.	116	1.78	1.102	Reject
25	I think children with ASD cannot be educated.	116	2.03	1.153	Reject

The criterion mean value for the rating of the 4 unit Likert scale was 2.5. For that reason, the questions 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, and 25, which fell under the negative attitude questions, were rejected since their means fell below the criterion mean.

Under the positive attitude questions, questions on avoiding stigmatization, the importance of the teacher's attitude when assisting the child to learn, showing empathy, patience and avoidance of the use of negative feedback had means of equal to or above 3.0 with avoiding stigmatization having the highest mean of 3.13. Other positive attitudes as tolerance, showing understanding, acceptance, openness, and giving the child appropriate attention showed means that fell between 2.81 to 2.98.

Furthermore, the values of the standard deviation ranged from 0.527 to 1.153. These values were relatively low, showing that the variability of the responses to the items on the questionnaires was low.

Table 2 shows a breakdown of mean values for each of the items in the questionnaires according to their gender.

Table 2: Mean Values According to Gender of Teachers

Gender		Male (Mean)	Female (Mean)
Number of Respondents		38	78
S/N	Items		
1	I do not think children with ASD are responsible for their behaviors.	3.45	3.46
2	It is always important for me to always have empathy for all my pupils including those with ASD.	3.53	3.64
3	My attitude is important in helping a pupil with ASD.	3.12	3.61
4	A child with ASD should be tolerated at all times.	2.61	3.56
5	I should be patient with children with ASD.	3.13	3.48
6	I am of the opinion that children with ASD should not be blamed when they do not behave as expected of them.	3.45	3.57
7	Children with ASD should not be stigmatized.	3.21	3.46
8	I should be open to children with ASD just like I am open to other children.	3.37	3.56
9	My acceptance of children with ASD is very important in helping them to learn in class.	3.76	3.64
10	I should give pupils with ASD my maximum attention	3.21	3.82
11	I do not allow other pupils in class to nickname children with ASD base on their character traits.	3.66	3.69
12	I find time to attend to each child personally, despite my busy schedule.	3.33	3.77
13	I use various teaching strategies to help pupils with ASD learn in class.	3.09	3.61
14	I do not use negative feedback to help a pupil with ASD to improve his behavior.	3.12	3.48
Mean Grand Total		46.04	50.35

Table 2 shows that the grand total of mean for the male participants was 46.04 while that for the female participants was 50.35. This shows a difference in mean of 4.31 with females having the higher mean value. A computation of the mean and standard deviation of these grand means show the mean to be 48.20 and the standard deviation to be 3.05. the standard deviation of 3.05 showed a relatively high variability in the means of female and male respondents.

The categories of teacher's age used were 18-25, 26-35, 36-50, 51 and above. Table 3 shows the grand mean totals for responses to the questionnaires based on teacher's age.

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Table 3: Mean of Responses Based on Teacher's Age

Age of Teachers		18-25	26-35	36-50	51 and above
Number of Respondents		45	34	30	7
S/N	Items				
1	I do not think children with ASD are responsible for their behaviors.	3.47	3.60	3.40	2.71
2	It is always important for me to always have empathy for all my pupils including those with ASD.	3.65	3.67	3.60	3.57
3	My attitude is important in helping a pupil with ASD.	3.56	3.60	3.70	3.57
4	A child with ASD should be tolerated at all times.	3.56	3.67	3.40	3.57
5	I should be patient with children with ASD.	3.21	3.47	3.10	3.57
6	I am of the opinion that children with ASD should not be blamed when they do not behave as expected of them.	3.29	3.40	3.30	3.57
7	Children with ASD should not be stigmatized.	3.29	3.53	3.50	3.57
8	I should be open to children with ASD just like I am open to other children.	3.74	3.73	3.30	3.57
9	My acceptance of children with ASD is very important in helping them to learn in class.	3.74	3.80	3.60	3.57
10	I should give pupils with ASD my maximum attention.	3.91	3.67	3.50	3.57
11	I do not allow other pupils in class to nickname children with ASD base on their character traits.	3.74	3.87	3.70	3.57
12	I find time to attend to each child personally, despite my busy schedule.	3.65	3.67	3.50	3.14
13	I use various teaching strategies to help pupils with ASD learn in class.	3.47	3.53	3.40	3.57
14	I do not use negative feedback to help a pupil with ASD to improve his behavior.	3.47	3.60	3.40	3.57
Total		49.75	50.81	48.40	48.69

The grand total for means for the responses for ages 18-25, 26-35, 36-50 and 51 and above were 49.75, 50.81, 48.40 and 48.69 respectively. The category for '26-35 years' had the highest mean of 50.81 while the category for '36-50 years' had the lowest mean of 48.40. A computation of the mean and standard deviation of these grand means show the mean to be 49.41 and the standard deviation to be 1.1. The standard deviation of 1.1 shows a low dispersion among the means.

4.2 Hypotheses

Table 4 shows the Chi-square test for teacher's gender and teacher's attitude towards pupils with ASD.

Table 4: Chi-square Test for Teacher’s Gender and Teacher’s Attitude towards Pupils with ASD

			Attitude		Total	X ²	Degree of freedom	p-value
			Negative	Positive				
Gender	Male	Count	11	27	38	4.482	1	0.034
		Expected Count	6.9	31.1	38.0			
		% within Gender	28.9%	71.1%	100.0%			
	Female	Count	10	68	78			
		Expected Count	14.1	63.9	78.0			
		% within Gender	12.8%	87.2%	100.0%			
Total		Count	21	95	116			
		Expected Count	21.0	95.0	116.0			
		% within Gender	18.1%	81.9%	100.0%			

(X² = 4.482, Degree of freedom = 1, p-value = 0.034, Critical value of X² at level of significance of 0.05 and df of 1=3.84)

The p-value of 0.034 is less than the alpha level of significance of 0.05 and X² of 4.482 is greater than the critical value of X² at level of significance of 0.05 and degree of freedom of 1 which is 3.84, hence the null hypothesis which states that the attitude of primary school teachers towards pupils with ASD is not significantly influenced by teacher’s gender was rejected. This implies that the attitude of primary school teachers towards pupils with ASD is significantly influenced by teacher’s gender. Also within the male gender, the expected count for Negative was 6.9 but the actual count was higher with a value of 11. The reverse was observed for the Positive responses as the expected count was 31.1 but the actual was 27. Comparing this for the females showed that the expected count for Negative was 14.1 but the actual was 10 while the expected count for Positive was 63.9 but the actual was 68. This is also expressed in the percentages for negative as 28.9% for males and 12.8% for females, positives as 71.1% for males and 87.2% for females. This reveals that the female teachers showed a higher propensity for positive attitudes towards pupils with ASD than the male teachers.

Table 5 shows the Cramer’s V value for the strength of association between gender and teacher’s attitude towards pupils with ASD.

Table 5: Cramer’s V value for the strength of association between gender and teacher’s attitude towards pupils with ASD

		Value	Approx. Sig.
Nominal by Nominal	Phi	.197	.034
	Cramer's V	.197	.034
N of Valid Cases		116	

The Cramer's V value is 0.197 which is approximately 0.2. This value shows a small strength of association between teacher’s gender and teacher’s attitude towards pupils with ASD.

Table 6 shows the Chi-square test for teacher's age and teacher's attitude towards pupils with ASD.

Table 6: Chi-square Test for Teacher's Age and Teacher's Attitude towards Pupils with ASD

			Attitude		Total	X ²	Degree of freedom	p-value
			Negative	Positive				
Age	18-25	Count	10	35	45	1.453	2	0.484
		Expected Count	8.1	36.9	45.0			
		% within AGE	22.2%	77.8%	100.0%			
	26-35	Count	4	30	34			
		Expected Count	6.2	27.8	34.0			
		% within AGE	11.8%	88.2%	100.0%			
	36-50/51 and above	Count	7	30	37			
		Expected Count	6.7	30.3	37.0			
		% within AGE	18.9%	81.1%	100.0%			
Total	Count	21	95	116				
	Expected Count	21.0	95.0	116.0				
	% within AGE	18.1%	81.9%	100.0%				

(X² = 1.453, Degree of freedom = 2, p-value = 0.484, Critical value of X² at level of significance of 0.05 and df of 2 = 5.99)

The p-value of 0.484 is greater than the alpha level of significance of 0.05 and X² of 1.453 is less than the critical value of X² at level of significance of 0.05 and degree of freedom of 2 which is 5.99, hence the null hypothesis which stated that the attitude of primary school teachers towards pupils with ASD is not significantly influenced by teacher's age was accepted.

4.3 Discussions

4.3.1 The Attitude of Teachers towards Pupils with ASD

Data analysis of respondents on the attitude of primary school teachers towards pupils with ASD which is captured in Table 1, showed that teachers largely exhibited positive attitudes towards these pupils. As was observed, the means for all the items for negative attitudes fell below the criterion mean of 2.5 and hence these items were rejected as having no critical effect on the results of findings. This finding provides insight into the attitude of teachers towards pupils with ASD, showing that these attitudes are generally positive. This positive attitude noted in this study can be attributed to the awareness of ASD created through the training of teachers by their schools on ASD, its management and expected teacher attitude towards these children, since the study was among teachers that are aware and trained in this regard. This is supported by Gibbons, Chak, Mynatt and Wilhoit (2016) assertion that awareness positively impacts on attitude and training enhances teachers awareness of ASD and how best to manage children with ASD. This leads to higher motivation and stronger self-efficacy among these teachers. This also culminates in better attitudes towards these children.

In addition, avoiding stigmatization had the highest mean, indicating that the teachers in this study rated ensuring pupils with ASD are not stigmatized as a very crucial requirement for a conducive classroom interrelationship. Respondents also rated higher questionnaire items like teachers maintaining general positive attitudes towards these pupils, showing empathy, patience and avoidance of the use of negative feedback, more than questionnaire items such as tolerance, showing understanding, acceptance, openness and giving the child appropriate attention.

This observation is in line with the cognitive dissonance theory which explains that attitude is formed based on the knowledge a person has about an object. As the theory also shows, awareness created leads to better evaluation of the source thereby eliciting better understanding, consideration and generally positive attitudes towards the source, which in this case are pupils with ASD. Brehm (2001) suggested that with persuasive communication, which is the purpose of training, the attitude of people can be influenced in a desirable way.

4.3.2. The Relationship between Teacher's Gender and Teachers' Attitudes towards Pupils with ASD

Data from Table 2 showed that the female teachers had a higher grand mean (50.35) compared to male teachers (46.04). The Standard deviation of 3.05 can be considered as large enough to show the dispersion in attitudes between female and male teachers. This position was confirmed by the results of the Chi-square test for hypothesis 1 by which the null hypothesis was rejected. Hence the attitude of primary school teachers towards pupils with ASD is significantly influenced by teachers' gender. This disagrees with Akiri and Ugborugbo (2008) and Shatri (2017) who opined that there was no significant relationship between gender and teacher's work performance. However, it is worthy to distinguish work performance from teacher's attitude towards pupils since work performance measures far more factors than attitude which is just an aspect of work performance. Consequently, while gender may have no significant relationship with work performance, this study showed it had a significant relationship with teacher's attitude towards pupils with ASD.

Analysis of Table 4 showed that female teachers had a higher propensity to show more positive attitude towards pupils with ASD than the male teachers. This finding agrees with the assertions of Zuzovsky (2003) and Martin and Smith (2001) that female teachers tend to perform better than their male counterparts. The Cramer's V value of 0.197 however showed a small strength of association between teacher's gender and teacher's attitude towards pupils with ASD.

4.3.3. The Relationship between Teacher's Age and Teachers' Attitudes towards Pupils with ASD

The grand mean for teachers' attitude with respect to teacher's age was presented in Table 3. The standard deviation of the grand mean was 1.1 indicating a relatively low variability of the means. Deduction from Table 6 indicated that the null hypothesis, which stated

that the attitude of primary school teachers towards pupils with ASD is not significantly influenced by teacher's age, was not rejected. This observation disagreed with Salthouse (2000) and Alufohai and Ibhafidon (2015) conclusion that a significant relationship existed between teacher's age and teacher's effectiveness. However, it supported Dehanty (2000) assertion that there was no significant relationship between teacher's age and their effectiveness. Hence, as Ladi (2008) explained, age and job performance are principally unrelated.

Although the observation in this study showed that teacher's attitude was not significantly influenced by teacher's age, it is worthy to note that it supported Sloane and Kelly (2005) finding that the middle age teachers were more effective when compared to the young and old age teachers. With respect to attitudes, the grand mean of 26-35 years of age (middle age) was the highest followed by that for 18-25 years of age (young age). This observation may be explained as Gunbayi (2007) stated that younger people have a higher propensity to value their employment and have a more positive outlook and commitment to their jobs. It is worthy to note that the category of 36-50 years had the lowest mean. This group is however made up of a mixture of middle age and old age category.

5. Conclusion

The findings in this study showed that within the special schools and mainstream schools for pupils with ASD, the attitudes of teachers' towards pupils with ASD are positive. This can be linked to the special in-house awareness created and trainings to prepare these teachers for the possible challenges of having a child with ASD as a student in their classrooms. Also the additional supports provided by these schools enable such teachers have a positive outlook about having a child with ASD as a student in his or her class.

Furthermore, gender was found to be a critical factor that can influence teachers' attitude towards pupils with ASD. Female teachers were found to have greater tendency to exhibit positive attitudes than their male counterparts. However, Teacher's age was found to have no significant influence on teachers' attitude towards pupils with ASD.

6. Recommendations

Based on the findings of this study, the following recommendations are proposed:

- 1) Awareness of ASD should be created in schools. This can be achieved by government interventions or the various schools training programs. Such awareness programs should be periodical to enable a continuous update for both new and old teachers of schools.
- 2) Training with regards to ASD should be part of teachers' education and curriculum. This will ensure that all teachers are adequately prepared and position to work with children with ASD with a better self-efficacy.

- 3) In employment policies, gender should be a consideration when selecting teachers for children with ASD. However, this study is not a conclusive indication that female teachers are 100% preferable to their male counterparts with regards to pupils with ASD.

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IN SELECTED PRIMARY SCHOOLS IN RIVERS STATE, NIGERIA

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