



**Gender variability, conditions of service and teaching effectiveness of Secondary School teachers in Calabar Education Zone, Cross River State, Nigeria**

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**Abstract**

The study was aimed primarily at investigating the possible influence of gender and teachers' conditions of service on their general teaching effectiveness in secondary schools in Cross River State. The survey inferential design was used and research area Cross River State with the population of 2424 teachers selected from secondary schools teachers in the Calabar Education Zone of the 2016/2017 academic year. Stratified sampling technique was used to select schools, teachers and students based on local government and school location. A 44-item teaching effectiveness questionnaire was developed to measure the effect of their teachers' gender (independent variable) on their teaching effectiveness (dependent variable). The dependent variable was operationalized under sub variables as: knowledge of the subject matter, ability to motivate the students, inter-personal relationship with students, his communication skills, ability to utilize various teaching methods, his evaluation skills and his general teaching effectiveness. In a similar manner, another questionnaire instrument with 10 items was constructed separately to measure the extent to which conditions of service can influence teachers' level of teaching. The result of the first hypotheses shoed a negative influence of gender variability on teaching effectiveness of secondary school teachers, while the second hypotheses indicated a positive influence of conditions of service on conditions of service. It was recommended that even though variability does pose a serious threat to teaching effectiveness, subjects should be allocated to teachers on the basis of competence and specialty. Basic classroom related conditions should be made available to make teaching and learning more purposeful and effective.

*Key words: gender, conditions of service and teaching effectiveness*

**Introduction**

The importance of teacher in the educational process is unquestionable and no educational system can rise above the quality and level of its teachers and so teachers have capacity to make or mar any educational of any given society. Teachers form the single strong causal factor in the definition of the quality of schools the world over. One thing that is sure is that teaching is not restricted to the job of lecturing, instead teacher they are expected to motivate, inspire, explain, engage, understand and guide students for their all-round (Fatima & Nasren, 2013). Teachers are expected to possess professional proficiency, educational efficiency and social sufficiency. For teachers to effectively achieve these social valued objectives of educating and bringing up the child, a number of factors are responsible to influence their job performance. Among these factors and very important to this study are gender and conditions of service available to the teachers in their work places and evaluating how these can influence their teaching effectiveness in secondary school. Secondary schools are dominated by women, leaving the men with a smaller ratio and while both the male and female teachers may possess certain traits (experience and academic qualifications), that are similar among them though with different magnitude, the challenges they faced in their classroom daily experiences varies (Darrin, 2012) . The impact of teachers' conditions of service may also vary between teachers and between schools and how these variations impact on their teaching effectiveness is a great concern to this study and educators the world over.

### **Statement of the problem**

The degree to which a teacher achieves the desired effects upon which students and the competencies and behavior of teachers at all educational levels that enable students to reach desired outcomes is referred to as teaching effectiveness. For a teacher to be effective, he must possess certain qualities or characteristics which may help make or mar his class room achievements. This study seeks to investigate the relative influence of teachers' gender as well as the conditions of service available to them in the work place outside other teacher-related variables such as teaching experience, qualification, interest and others. How these two teacher-related variables which the teacher cannot control can influence their teaching effectiveness within the study area is the concern of the researcher. Cross River State is classified as educationally less developed notwithstanding the huge government investment on education by successive administrations. Students' performances at both internal and national examinations remain indicators that all is not well with our educational system. The Calabar Education Zone of Cross River State is not exceptional, hence the desire of this study. The interest is to also proffer some solutions.

### **Teachers' gender and teaching effectiveness**

Gender is a significant variable that may influence teacher effectiveness along with other variables. Most studies have argued that what might appear to be gender variability may just be the different methods or styles adopted in the classroom. Nasser & Sahar, (2012) in their peer review of gender study and the effects on productivity, found that female teachers were found more supportive, expressive in the classroom, they were also seen to be more nurturing, informal and open-minded towards students. They spend quality time encouraging and allowing for students' participation in classroom activities. Female teachers believe in flexible teaching methods, ask more reference questions, give more compliments and use less directives techniques in their dealings with students. According to the authors, Female teachers share authority and maintain control in the classroom in a way that keeps their relationship with student intact. Male teachers on the other hand are dominating, and like to exact and exercise greater control, they like to emphasize more to group work and structure activities, ask more delayed questions that make the exchange between teachers and student shorter, but more frequent. They used their authority at the cost of involving students with an authoritarian and task oriented teaching style. They there affirmed that gender has a role to play in determining the teaching effectiveness of teachers in schools.

Marchbank (2000) further reported female teachers to possess the personality traits necessary to become a more effective teacher to higher degree than their male counterparts. MacNeill, Driscoll & Hunt, (2014) found that students' rated male teachers higher than their female counterparts in one of the experimental study, reporting specifically that male teachers are generally more effective in the management of instruction regardless of the instructional procedure, methods and strategies. In a qualitative analysis of 288 college students of two campuses used to describe their best ever and worst teachers, the result provided indicated that students hold teachers accountable to certain gendered expectations. Female expectations are more labor intensive than their male counterparts. Sprague & Massoni, 2005 observed that there was greater hostility towards female teachers than their male counterparts, thus rendering female teachers less effective in instruction management.

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In his study, Feldman (1993) reported a significant relationship between the gender of a teacher and his level of effectiveness, he however contended that some evidence of relationship either positive or negative becomes eminent as follows: that male teachers tend to be more effective than their female counterparts in classes where the majority of the students are males. Edunoh, (2002) used multiple regression analysis on a study to predict science teachers' general effectiveness by demographic variables of qualification, in-service-training, age, marital status, teaching experience and sex. Only eight percent (8%) of the variance of teachers' general effectiveness was accounted for by the above demographic variables of science teachers. The variance was not significant at a 0.05 level of significance for the f-values. It was therefore clear that the regression weights for academic qualification, in-service training, age, marital status teaching experience and sex were not statistically significant at 0.05.

Tyler (1986) made an excellent summary of sex variability in the population of teachers. He found that males tend to be higher in mathematical reasoning, spatial judgment and science, whereas females are averagely higher in verbal fluency rote memory, perceptual speed and dexterity. Most factors as it affects teaching effectiveness. Santrock (1995) maintains that most female teachers incorporate gender – role stereotypes into their general intellectual abilities than males. By doing so, they tend to become less confident in their general intellectual abilities. This development, affects their choice of career and level of educational attainment and teaching effectiveness. Santrock (1995) also asserted that in most countries of Africa, there seems to be a shortage of female science teachers, including Nigeria and this is not a very healthy development most especially in Nigeria where so much importance is attached to certain gender roles. At all levels of educational pursuit however, a good blending of the number of employed male and female teachers is necessary.

In their submission, Vasta, Haith, Miller (1995) observed that children would prefer to be taught by teachers that of the same gender as themselves. How this will affect their level of effectiveness is very important. Not much significant cognitive variability exists between males and female teachers in terms of subjects like social studies, except for the population of the gifted Santrock, (1995). In his submission, (Iheanacho, 2002) noted that male teachers judge the level of trainers adjustment based on maturity, dependability, trust worthiness, good judgment being secure as a person, and lack of self-consciousness. The female teachers adopt the criteria of modesty and humility: the females emphasize negativism, discipline problem, getting into trouble in school, and hostility to authority as determinants of post adjustment. Researchers such as Witek, (1997) have suggested a more viable target for a study that would consist of the specific characteristics of a teacher. Other authors specifically have advocated for the studying of gender effect on teacher effectiveness. Dickson, (2006) remarked that emphasis should be shifted from the perceptions about school safety, the quality of classroom interaction, job satisfaction and beliefs about students aggression (Dickson, 2006).

Page and Rosenthal (1990) investigated teacher gender as one of the possible influences on student performance. Teachers were instructed to teach a proposed academic task, and using the analysis of variance, male teachers were discovered to have performed significantly better than female, thus more effective. Upon examination, male and female teachers were found, to teach differently depending on the student's race and gender, thus explaining the differences in student performance scores. Males and female teachers treated students differently resulting in varying referrals and levels of students' performances and teacher effectiveness.

Furthermore, a study conducted by the University of Nebraska-Lincoln, in 2012 involving the annual evaluation of teachers effectiveness and gender variability, it was reported that there is a significant biasness between male and female teachers in their teaching effectiveness.

On the contrary, (Rashidi & Raffee, 2010) reported that gender have little or no significant influence on how often technical Education Faculty (teachers) used the various instructional practices when controlling for academic school, gender differences were found to be of little or no significance. Additionally, in a study conducted by Gall & Borg (2003) where 676 surveys were sent to teachers via in-school mail within an urban school district in the state of Texas, 167 surveys were returned, for a response rate of 24%. 152, representing 91% were females and 15, representing 9% were males. Using a One-Way ANOVA to investigate how statistically significant the gender variable of male and female can determine teacher effectiveness, the test result was not statistically significant,  $F(1,160) = 341, P > .05$ . Thus the level of teacher effectiveness did not differ according to teacher gender. Sprague & Massoni, (2005) further reviewed students evaluation of test by combining nine (9) prior meta-analysis covering 193 studies, found a small-to-medium overall weighted mean effect size between Students Evaluating Test and the variables studied. The findings therefore revealed that Student Evaluation Tests (SETs) appeared to be valid, and a practical relevance that is largely free from gender bias. It further posited that gender variability has no significant effects on the faculties teaching efficacy.

### **Teachers' conditions of service and teaching effectiveness**

The personal attributes of teachers significantly vary across schools and these differences are not too sufficient to correlate with the teaching effectiveness of these teachers (B. Berry, Daugherty, Wieder, 2009; B. Berry Daugherty & Wieder, 2010; Bell, Rueben & Danenberg, 2000; Harris & Sass, 2011). The impact of such working conditions as school leaders, teachers' compensation, school economic status have been examined by (Jackson, 2014; Johnson, Kraft & Papay, 2012; Ladd, 2011; Loeb, leadership Teachers' input, process and outputs are important measures in estimation of teacher effectiveness but recently, the focus has moved from teacher inputs to teacher process and output in terms of students' achievements and success (Darling-Hammond & Yongs, 2002; Goe, 2007; Rice, 2003; Wilson & Floden, 2003). In a synthesis study by (Goe, 2010), it was observed that teacher effectiveness cannot be solely influenced by teacher input conditions such as teacher age. It further opined that teachers' background variables such as qualification and certification cannot always predict which teacher will be most successful in the classroom.

Schools are to provide the needed working environment and professional properties as well as community resources for teachers to excel (Kusum, Bonnie, Alexander & Skaggs, 2016). The working conditions available to a teacher are meant to motivate or encourage teachers put in all they got in their task of teaching. These conditions of service in relation to the ratio of teachers' productivity and effectiveness should be a point of reference in the school system. Good and better conditions of service makes teachers have appropriate assignment, enough access to information, adequate material and technology to work with as well as adequate time to work with colleagues on matters of instruction management (Leihwood 2006). The author opined that good working conditions can be divided into classroom level and school level. The classroom working conditions include and are not restricted to teaching workload, class size, student composition of class, etc and these are

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more important to teacher effectiveness. School level working condition are school culture, school structure, school size, location physical facilities and these have little direct influence on teacher effectiveness.

Obi-Akatchak (1983) in his study on the levels of job satisfaction among four groups of Secondary school teachers and school principals Ogoja in order to evaluating their efficiency in the school system, discovered that there was a significant different existing between effectiveness of teachers and their level of conformance. Inyang (1988) had earlier posited that individual's saturation always lead to organizational commitment and effectiveness, while dissatisfaction results in behaviour that are decremented to the organization. He studied 300 civil servants in Cross River State, using the services of the Chi-square and Pearson product moment correlation statistics at a 0.05 level of significance. He found out that some major factors could lead to job satisfaction thus effectiveness and consequently organization commitment and these factors may include good human relation, frequent promotion, and recognition of abilities, good working condition, social support and general motivation.

Edunoh (2002) studied the psycho-social determinants of Secondary school teachers' effectiveness in Calabar municipality, using the Pearson product moment correctional analysis to determine the relationship between job satisfaction of science teachers and their level of teaching effectiveness. At a 0.05 level of significance, he found science teachers' level of job satisfaction having no significant influence on their teaching effectiveness. In support of personnel participation in decision making, Morphet and Associate (1974) believed in the ultimate aim of personnel participation in the making of decision as it will improve the nature of the decision what are made either in the manner in which the individual performs his role in the position to which he is and issues which affect all personnel. The above mentioned studies are largely centered on conditions of service of teachers as they are related to his effectiveness. For teachers to be effective, it is necessary that their conditions of service must be favorable, just as workers in other services. These conditions are also applicable to teachers in Secondary Schools as far as their teaching effectiveness is to be guaranteed. It is however said that the most satisfied teacher is the most effective. An important factor in attaining organizational effectiveness is the management of the human resources and there is nowhere this factors is crucial than in our school system where the kind of education that students receive t is heavily dependent on the quality of the performance of the teachers who teach them.

Additionally, Essien (2004) carried out a study in Cross River and Akwa Ibom States of Nigeria involving 105 principals, 21 females and 84 males as samples. The data was analyzed using chi-significance. The findings revealed that the principals are competent in their work but the teachers were not satisfied with their work because of equipment and buildings. He noted that the magnitude of the relationship or correlation coefficient between force of motivation and independent ratings of efforts, appears to have a ceiling of about 0.30 i.e. while motivation is an important factor in performance, research confirmed that other factors in the environment are equally important. In a separate study, Vroom (1964) posited that positive attitude towards one's job is conceptually equivalent to job effectiveness while negative attitude or condition of service will definitely result in job (teaching) ineffectiveness

Several factors are responsible for teaching ineffectiveness of most teachers in schools and colleges the world over. In this study, the place of teacher gender and their conditions of service in the work place are brought to the fore. The question of whether there are specific subject areas that should be restricted to a certain gender (males

or females) and the implications of gender factor on the teaching quality in the classroom. If teachers are to function effectively, do their conditions of service matter? The influence of teachers' gender and the prevailing and how teaching effectiveness can be influence through these variables. Working conditions and the associated incentives, what about the health provisions for teachers and family life? Is teaching effectiveness a function of any other extraneous variable outside certification and qualification?

The main purpose of this study is to establish the influence of teachers' related variables on their teaching effectiveness in public secondary schools in Cross River State. Specifically, the study seeks to determine:

- i. The influence of teachers' gender on their teaching effectiveness in public secondary schools
- ii. The influence of teachers' conditions of service on the teaching effectiveness of teachers in public secondary schools

### **Statement of hypotheses**

The following hypotheses are tested in the study:

- $H_{01}$ : Gender variability has no significant influence on the general teaching effectiveness of secondary school teachers in Cross River State.
- $H_{02}$ : Conditions of service has no significant relationship with teachers' teaching effectiveness in public secondary schools in Cross River State

### **Methodology**

The research design used in this study is the survey inferential design. The research area is Cross River State, and the population of the study is 2424 teachers selected from secondary schools teachers in the Calabar Education Zone of the 2016/2017 academic year. Stratified sampling technique was used to select schools, teachers and students based on local government and school location.

Furthermore, a 44-item teaching effectiveness questionnaire was developed for selected students to measure the effect of their teachers' gender (independent variable) on their teaching effectiveness (dependent variable). The dependent variable was operationalized under sub variables as: knowledge of the subject matter, ability to motivate the students, inter-personal relationship with students, his communication skills, ability to utilize various teaching methods, his evaluation skills and his general teaching effectiveness. In a similar manner, another questionnaire instrument with 10 items was constructed separately to measure the extent to which conditions of service influenced teachers' level of teaching effectiveness and this was to be completed by the teachers. A six-point Likert scale was adopted for each item in the questionnaire. The instrument were validated and found to be reliable for the study.

### **Results and discussion**

Hypothesis one: The null hypothesis is as stated: Gender variability has no significant influence on the general teaching effectiveness of secondary school teachers in Cross River State. The independent variable is gender while the

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The dependent variable which is teaching effectiveness was operational by seven indices. The Means and Standard deviations of the sub variables for male and female teachers was computed and compared using independent t-test analysis. The result of the analysis is presented in Table 1

**Table 1: Independent t-test analysis of influence of gender on teachers' teaching effectiveness**

<i>Teaching effectiveness variables</i>	<i>Sex</i>				<i>T</i>
	<i>Male</i>		<i>Female</i>		
	<i>n = 138</i>	<i>n = 112</i>	<i>n = 112</i>	<i>n = 138</i>	
	$\bar{X}$	SD	$\bar{X}$	SD	
Knowledge of subject matter	27.84	3.78	27.37	3.51	1.02
Ability to motivate students	27.54	3.70	26.34	2.94	2.85*
Human relations	26.26	3.41	28.17	4.32	-3.82*
Communication	27.38	4.60	27.79	3.83	-0.75
Instructional method	25.82	4.17	25.35	4.08	0.89
Method of evaluation	26.92	4.49	28.42	3.27	-3.05
General teaching effectiveness	27.62	4.77	27.89	2.51	-.57

As presented in Table1 the result shows that there is a significant influence of gender on teachers' teaching effectiveness in terms of ability to motivate students ( $t = 2.85$ ;  $P < .05$ ), human relations ( $t = -3.82$ ;  $P < .05$ ) and method of evaluation ( $t = 3.05$ ;  $P < .05$ ). The hypothesis was rejected for these three cases and the alternative hypothesis retained because the calculated t-values of 2.85, -3.82 and 3.05 were found to be greater than the critical t-value of 1.96 at .05 alpha levels and with 248 degrees of freedom. Further observation of Table 4.7 showed that male teachers had higher mean in teaching effectiveness in ability to motivate students ( $x_m = 27.54$ ;  $x_f = 26.34$ ) than their female counterparts. This result means that male teachers are more effective in motivating students than their female counterparts. On the other hand, result also showed that the female teachers had higher mean teaching effectiveness in human relation ( $x_m = 26.26$ ;  $x_f = 28.42$ ) than their male counterparts. This finding means that female teachers are more effective in human relations and in evaluating students.

Further examination of Table1 also shows that there is no significant influence of gender on teachers' teaching effectiveness in terms of knowledge of subject matter ( $t = 1.02$ ;  $P < .05$ ), communication ( $t = 0.76$ ;  $P < .05$ ), instructional method ( $t = 0.89$ ;  $P < .05$ ) and general teaching effectiveness ( $t = -.57$ ;  $P > .05$ ). A breakdown of the analysis shows that the male teachers had higher teaching effectiveness in terms of knowledge of subject matter ( $x_m = 27.84$ ;  $x_f = 27.37$ ); and instructional method ( $x_m = 25.82$ ;  $x_f = 27.37$ ) and instructional method ( $x_m = 25.82$ ;  $x_f = 25.35$ ), while the females had higher mean teaching effectiveness in terms of communication ( $x_m = 27.38$ ;  $x_f = 27.79$ ) and general teaching effectiveness ( $x_m = 27.62$ ;  $x_f = 27.89$ ). Though these slight differences occurred, they were not statistically significant, hence, the retention of the null hypothesis for these cases.

Hypothesis two

Conditions of service has no significant relationship with teachers' teaching effectiveness in public secondary schools in Cross River State

The independent variable for this hypothesis is conditions of service, while the dependent variable is teachers teaching effectiveness expressed in different dimensions. Using the Pearson product moment correlation analysis, this hypothesis was tested and the result of the analysis is presented in Table 2.

Table 2: Pearson product moment correlation analysis of relationship between condition of service and teachers' teaching effectiveness (n = 250)

<b>Variables</b>	$\bar{X}$	<b>SD</b>	<b>R</b>
Condition of service (x)	34.78	10.47	
Teaching effectiveness in term of			
KSM (Y1)	27.63	3.55	.35*
AMS (Y2)	27.01	3.43	.54*
Hr (Y3)	27.11	3.95	.37*
COMS(Y4)	27.57	4.27	.40*
IM(Y5)	25.61	4.13	.41*
MOE (Y6)	27.60	4.05	.51*
TTE (Y7)	27.74	3.92	.21*

\*p<.05; df = 248; Critical r = 0.12.

The result presented in Table 2 shows that there is a significant relationship between teachers' conditions of service and their teaching effectiveness in terms of: knowledge of subject matter (r=.35; P<.05), ability to motivate students (r = .54; P<.05), human relations (r = .37; P<.05), communication (r = .40; P<.05), instructional method (r=.41; P<.05), method of evaluation (r = 0.51; P<.05) and general effectiveness (r -.21; P<.05).

The null hypothesis was therefore rejected. This is because the obtained f-values of .35, .54, .37, .40, .41, .51 and .21 were found to be greater than the critical r-value of 0.12 given .05 alpha levels and with 248 degrees of freedom. This implies that the more favourable the teachers' conditions of service are, the higher their level of teaching effectiveness in terms of knowledge of subject matter, ability to motivate students, human relations, communications, instructional methods, method of evaluation and general teaching effectiveness. Conversely, the less favorable the teachers' conditions of service are, the lower their teaching effectiveness in terms of teachers' knowledge of subject matter, ability to motivate students, human relations, communication, instructional methods, method of evaluation, general teaching method.

As presented in Table2, the result shows that there is a significant influence of gender on teachers' teaching effectiveness in terms of ability to motivate students (t = 2.85; P<.05), human relations (t = -3.82; P<.05) an method of evaluation (t=3.05; P<.05). The hypothesis was rejected for these three cases and the alternative hypothesis retained because the calculated t-values of 2.85, -3.82 and 3.05 were found to be greater than the critical t-value of 1.96 at .05 alpha levels and with 248 degrees of freedom. Further observation of Table1 shows that male teachers had higher mean in teaching effectiveness in ability to motivate students ( $x_m = 27.54$ ;  $x_f = 26.34$ ) than their female counterparts. This result means that male teachers are more effective in motivating students than their female counterparts.



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On the other hand, result also showed that the female teachers had higher mean teaching effectiveness in human relation ( $x_m = 26.26$ ;  $x_l = 28.42$ ) than their male counterparts. This finding means that female teachers are more effective in human relations and in evaluating students. Further examination of Table 4.7 also shows that there is no significant influence of gender on teachers' teaching effectiveness in terms of knowledge of subject matter ( $t=1.02$ ;  $P<.05$ ), communication ( $t=0.76$ ;  $P<.05$ ), instructional method ( $t=0.89$ ;  $P<.05$ ) and general teaching effectiveness ( $t=-.57$ ;  $P>.05$ ). A breakdown of the analysis shows that the male teachers had higher teaching effectiveness in terms of knowledge of subject matter ( $x_m = 27.84$ ;  $x_l = 27.37$ ); and instructional method ( $x_m = 25.82$ ;  $x_l = 27.37$ ) and instructional method ( $x_m = 25.82$ ;  $x_l = 25.35$ ), while the females had higher mean teaching effectiveness in terms of communication ( $x_m = 27.38$ ;  $x_l = 27.79$ ) and general teaching effectiveness ( $x_m = 27.62$ ;  $x_l = 27.89$ ). Though these slight differences occurred, they were not statistically significant, hence, the retention of the null hypothesis for these cases.

### **Teachers' gender and their teaching effectiveness**

The result of hypothesis 1 revealed that gender variability to an extent had no significant influence on teaching effectiveness in terms of; knowledge of the subject matter, communication skills, use of instructional methods and the general teaching effectiveness. The above dimensions of teaching effectiveness are so the outcome of other dimensions such as; human relations, ability to motivate students, and methods of evaluation were considered insignificant. The observation of the hypothesis aligns with the outcome of a study conducted by Edunoh (2002). He used the multiple regression analysis to predict science teachers' general effectiveness by using demography variables such as qualification, in-service training age, marital status, teaching experience and sex. Only eight percent (8%) of the variance of teachers' general effectiveness was accounted for by the demographic variables of the science teachers, it was clear that the regression weight for sex and other variables were not statistically significant at 0.05 and this observation collaborates with the finding of this hypothesis, thus indicating that gender variability did not influenced the teaching effectiveness.

The position of this study is equally shared with the result of an investigation carried out by Rashidi & Rasffe (2010) who equally discovered that gender have little or no significant influence on how often technical Education Faculty (teachers) used the various instructional practices when controlling for academic school, gender differences were found to be of little or no significance.

This study is a further refutes the earlier study of Gall and Borg (2003) whose result of the hypothesis did not however align with the outcome of a study. The authors found that male teachers appeared to be more effective in mathematical reasoning, spatial judgment and science, whereas the female teachers were generally higher in verbal fluency, role memory, perceptual and dexterity. On the contrary Nasser & Sahar, (2012) in their peer review of gender study and the effects on productivity, found female teachers more supportive, expressive in the classroom; they were also seen to be more nurturing, informal and open-minded towards students. They spend quality time encouraging and allowing for students' participation in classroom activities. This result therefore supports this earlier position. Additionally, MacNell, Driscoll & Hunt, (2014) found that students' rated male teachers higher and more effective than their female counterparts in one of the experimental studies, reporting specifically that male teachers are generally more effective in the management of instruction regardless of the instructional procedure, methods and strategies. In a qualitative analysis of 288 college students

of two campuses used to describe their best ever and worst teachers, the result provided indicated that students hold teachers accountable to certain gendered expectations.

Furthermore, female teachers' expectation are more labor intensive than their male counterparts. Sprague & Massoni, (2005) observed that there was greater hostility towards female teachers than their male counterparts, thus rendering female teachers less effective in instruction management. The findings from this study also contradicts Edunoh, (2002) who used a multiple regression analysis on a study to predict science teachers' general effectiveness by demographic variables of qualification, in-service-training, age, marital status, teaching experience and sex. Only eight percent (8%) of the variance of teachers' general effectiveness was accounted for by the above demographic variables of science teachers. The variance was not significant at a 0.05 level of significance for the f-values. It was therefore clear that the regression weights for academic qualification, in-service training, age, marital status teaching experience and sex were not statistically significant at 0.05.

Additionally, the result of the hypotheses collaborate with the views of Tyler (1986) who made an excellent summary of sex variability in the population of teachers. He found males to be higher in mathematical reasoning, spatial judgment and science, whereas females are averagely higher in verbal fluency rote memory, perceptual speed and dexterity. Most factors as it affects teaching effectiveness. The result is also at variance with Santrock (1995) whose study reported that most female teachers incorporate gender – role stereotypes into their general intellectual abilities than males. By doing so, they tend to become less confident in their general intellectual abilities. Again, the result of the hypotheses did not agree with MacNell, Driscoll & Hunt, (2014) found that students' rated male teachers higher and more effective than their female counterparts in one of the experimental studies, reporting specifically that male teachers are generally more effective in the management of instruction regardless of the instructional procedure, methods and strategies

### **Conditions of service and teachers' teaching effectiveness**

Hypothesis 2 was tested at .05 level of significance using the Pearson Product Correlation Analysis. The result indicated a positive relationship between the teachers' conditions of service and their level of teaching effectiveness. This findings conforms with (Kusum , Bonnie, Alexander & Skaggs, 2016) who revealed that such factors as good human relations, frequent promotion and recognition of abilities, good working conditions, social support and general motivation could act as stimulus to a teacher and thus making him more effective in pedagogical concerns. The authors suggested that the working conditions available to a teacher are meant to motivate or encourage teachers put in all they got in their task of teaching. These conditions of service in relation to the ratio of teachers' productivity and effectiveness should be a point of reference in the school system.

Additionally, this result collaborate with Inyang (1988) who in his investigation of 300 civil servants in Cross River State and with the use of the chi-square and Pearson product moment correlation statistic at a 0.05 level of significance, reported that workers' satisfaction always will lead to organizational commitment and effectiveness, while dissatisfaction result in behavior that are detrimental to the organization goals.

Furthermore, the findings of this hypothesis is in line with (Leihood, 2006) who also submitted that good and better conditions of service make teachers have appropriate assignment, enough access to information, adequate material and technology to work with as well as adequate time to work with colleagues on matters of instruction management.

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The finding of this hypothesis is equally shared by Essien (2004) in his study carried involving Cross River and Akwa Ibom States. He used 105 principals, and teachers comprising of 21 females and 84 males as samples. This data were analyzed using the chi-square statistic. He discovered that principals were very competent in their work but the teachers were not satisfied with their work because of the lack of basic and relevant equipment and good buildings. The principals were motivated and were effective because of their positive conditions of service which were better than those available to teachers.

On the contrary however, the result of this hypotheses contrast the views of Edunoh (2002), who in a study involving a psychosocial determinant of secondary school teachers' effectiveness in Calabar Municipality, using the Pearson product moment of correlation analysis the researcher observed that science teachers' level of job satisfaction had no significant relationship with their teaching effectiveness, thus contrasting with the finding of this hypothesis. The result of these hypotheses does not support the views of (Goe, 2010). The author observed that teacher effectiveness cannot be solely influenced by teacher input conditions such as teacher age. It further opined that teachers' background variables such as qualification and certification cannot always predict which teacher will be most successful in the classroom.

### **Conclusion**

The study was concerned with the empirical investigation of the relationship between teachers' gender, conditions of service and teachers' teaching effectiveness. From the instruments developed, validated and administered, responses were obtained and further quantified and analyzed using suitable statistical tools. To guide the researcher properly, two (2) research questions were formulated and from the research questions, two null research hypotheses were drawn and tested. From the result obtained the following results. The findings revealed as follows:

- (1) The gender of a teacher have no significant influence on their level of teaching effectiveness in terms of; knowledge of the subject matter, communication skills, use of instructional methods and the general teaching effectiveness. Other dimensions showed some levels of significance. What is most significant is to allow each individual teacher to specialize in courses with comparative excellence and skills.
- (2) The conditions of service disposed to teachers have a significant relationship with their level of teaching effectiveness. A teacher must be adequately cater for with the provisions of the basic infrastructures in line with regular promotion and other incentives, thus, boasting their zeal and effectiveness.

### **Recommendations**

The following recommendations were made in the light of the findings in this study;

- (i) School administrators and managers should note the disciplines or subject areas that female teachers have a comparative advantage as has been reflected in some of the reviews in this study and should be assigned such subjects. This will go a long way in bringing out their best in them and thus making them more effective. The male teachers, if found to be excellent in the sciences and logic should be accorded such responsibilities as this would comparatively lead to better service delivery. We must also be reminded that

both the male and female teachers are indispensable in the educational process because they all have basic characteristics.

- (ii) The significant relationship between conditions of service and teaching effectiveness shows that owners and managers (including government and private proprietors) of schools should ensure that there are classroom-based conditions of service good enough for use at all times. Regular promotion, in-service training programs should always be seen by teachers as special incentives that enhance teaching effectiveness. Above all school-based conditions of service must equally be given the needed attention for the overall operations of teacher effectiveness in our secondary schools.

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