



Munich Personal RePEc Archive

# **Gender Comparison, Schooling and Sociability Ratings in Nigeria Evidence from Youth Survey in Ife Town**

Paul Ojeaga and Deborah Odejimi

Bergamo University Italy, Igbinedion University Okada Nigeria

13. July 2013

Online at <http://mpa.ub.uni-muenchen.de/55572/>

MPRA Paper No. 55572, posted 1. May 2014 04:33 UTC

Gender Comparison, Schooling and Sociability Ratings in Nigeria  
Evidence from Youth Survey in Ife Town

\*Paul Ojeaga<sup>1</sup>

Deborah Odejimi

Bergamo University Italy

Corresponding author: paul.ojeaga@unibg.it

Abstract

This study investigates factors that affect sociability ratings among youths between 10 to 30 years of age in Nigeria, using a survey carried out in Ife town. The results show that in-school females were likely to socialize more than out of school females. Schooling was found to be affecting youth sociability rating in general. There was also a noticeable level of reduced socialization among out of school youths as it was found that they were less likely to interact as much as in-school youths owing to their family backgrounds. The implication of the findings is that schooling does affect the level of social interaction among youths in general since youths out of school had some level of inferiority complex that prevented them from socializing with in-school youths.

Keywords: Extraversion, Gender Comparison, Schooling, Sociability

JEL Classification: I21, J16, Z18

**1.0 Introduction**

Only very few studies have investigated the effect of –schooling- on -sociability ratings - among –youths- in Nigeria. The impacts of schooling on youth sociability ratings remain largely unknown while the extent to which schooling affects extraversion for females remains unclear. Past literature, e.g. Ojeaga, Imohnopi, Omosefe (2013), discussed the impact of school enrollment for females on labor market participation using data for some selected African countries and finds that women were more employable when educated and that wages also improved for educated females in the sample under consideration.

---

<sup>1</sup> We express thanks Miss Adeniyi Fumilola of Psychology Department Obafemi University Ife for administering and providing us with the questionnaire results for this study.

Sociability ratings for male and females is also likely to differ quite significantly, many factors often affect sociability ratings among youths in general some include youth age brackets, family religious disposition, education, gender and cultural values. Sociability ratings among youths is also of immense significance since this is likely to affect youths in their formative stages of life, understanding the factors that determine the extent of socialization among youths is also likely to give an incite as to what factors often affect social behavior and peer interaction among youths of different age brackets. While school enrolments rates have been on the increase, Africa still continues to experience the lowest school enrollment rates in the world. The implication of this is that Africa is likely to have the largest untrained and least educated manpower in the World for many years to come. This is likely going to affect the level of sociability among African youths in general compared to those in other regions , since they are likely to interact less sociably compared to those in other regions with higher school enrollment rates.

The level of interaction among youths in their formative stage can have strong consequences for the overall society; this is likely to have a spill-over effect into their adult life and subsequently on how they perceive the society at large. For instance youths that grow in free and friendly environments are likely to be less disturbed psychologically than youths who have to pass through experiences of many restrictions and hostile conditions, which are attributable to differences in culture and religion across societies.

The nature of the spill-over effect on the society is that these experiences often shape their general conception of the larger society as well as their global outlook. Gender discrimination is also prevalent in many parts of Nigeria today; the factors responsible for such abnormality cannot be divorced from differences in cultural beliefs, religious affiliation, the level of education of parents and individual family endowment. This study investigates the effect of schooling on gender sociability ratings using primary data for Ife town in Nigeria. The method of estimation used is the multivariate regression analysis. The rest of the paper is divided into the review of literature, stylized facts on schooling and sociability ratings amongst youths, theory and methodology, data and sources, empirical analysis and results and finally the concluding section.

## ***2.0 Scope and Objective of Study***

The study presents empirical evidence on how schooling affect gender discrimination (sociability ratings differences among in and out of school male and female youths) by studying male and female sociability ratings in Ife town. The objectives of the study are;

- a.) To determine the extent to which schooling affect sociability among youths.
- b.) To determine if in-school youths have a higher sociability rating than out of school youths.
- c.) To determine if in-school female have a higher sociability rating than out of school females.

- d.) To determine the general difference in sociability between male and females in and out of school.

### ***3.0 Review of literature***

Past studies find strong evidence that childhood sociability affect adult behavior Ozer and Benet-Martinez (2005). Other studies find that moderate child stability has a strong effect on adult behavior DelVecchio and Robert (2000). There is also a strong link between sociability and extraversion, suggesting that childhood sociability ratings affect adult temperament conditions Ahadi and Robert (1994) and Capsi (1998). Few studies if any have addressed issues of youth sociability ratings and schooling adequately from a gender perspective.

The study by Goldberg (1992) and Saucier (1994) state five basic childhood traits that are likely to affect adult behavior as talkative, shy, sociable, energetic and reserved as a measure of extraversion. Methen and Methen (2004) also study the dynamics between sociability and hostility using Pearson correlation coefficient and find that sociability was related to extraversion and hostility was negatively related to emotionally stability.

Some studies e.g. Svensson, Andrew and Walker (2003) also deal with implicative factors of sociability on the human behavioral formation process and the preventive measures to be used in stemming the negative effects that can arise due to poor sociability traits among children. They suggest that preventive measures such as putting children in more friendly environment is likely to reduce poor sociability ratings among youths.

The study by Wachs (2004) analyses sociability among youths in elementary school and finds that elementary schools have strong effect on youth sociability ratings and has the capability of affecting their genetic behavioral composition. The implication of this finding is that youth dysfunctional behavior can be addressed early and corrected in their formative years allowing for the adoption of preventive regimes to control poor sociability ratings that could affect their overall temperament and adult behavior. Shiner and Capsi (2003) also proposed a four dimensional hierarchical framework which describes extensively the factors that affect children behavior, from a personality and temperamental point of view. They state that extraversion has strong effects on positive emotionality and can have strong effects on adult behavior on the long-run.

In this study we study the effect of schooling on sociability ratings among children in the Ife metropolitan region for in and out of school youths between the ages of 10 to 30 years of age. The effect of schooling on sociability for boys and girls was considered in order to determine if gender discrimination often associated with higher enrollments for boys than girls does affect female sociability ratings in a negative manner. The reason for this is that till date few studies if any have adequately addressed the issue in an exhaustive manner.

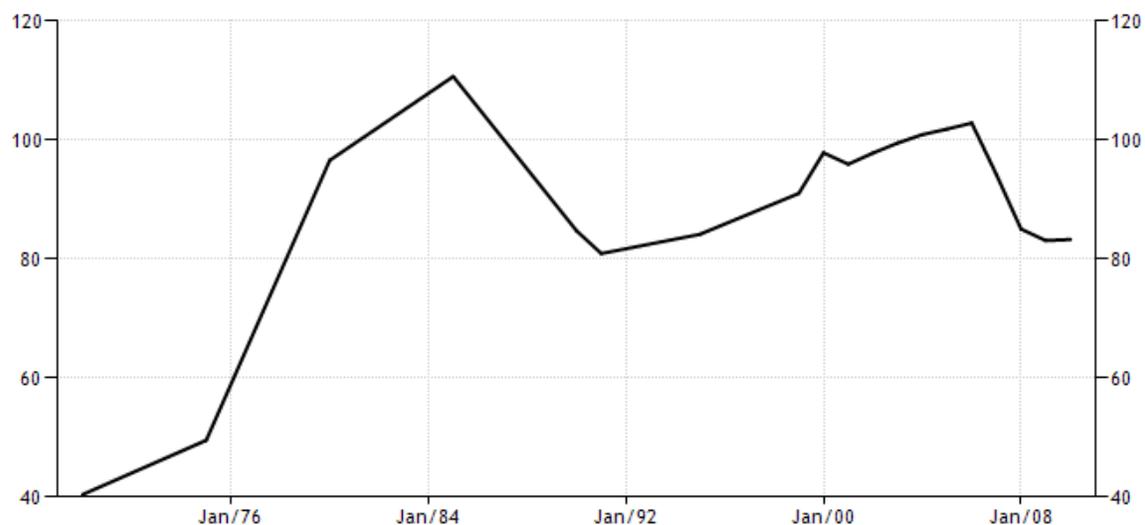
#### *4.0 Stylized facts on schooling and sociability ratings among youths*

School enrollment rates have been on the decline, since 1986 in Nigeria and have not managed to reach its previous peak values of the mid 1980s see fig. 1 below. According to World Bank 2013 ongoing statistics for Nigeria, even with the current expansion in Nigeria's GDP in the third quarter of 2013 by 6.18% the lowest in the last four years, education still does not receive the deserved attention (World Bank statistics 2013).

Basic education provides children with the opportunity to learn basic reading, writing and mathematics solving skills which they often require in their formative stages in life. In addition children are instructed on how to be of good conduct and closely observed by teachers for unhealthy character traits which can be addressed early.

The ratio of female to male school enrollment rate is also steadily on the increase in Nigeria and this has been quite dramatic since the early 2000s see fig. 2. This is also probably attributable to improved understanding among parents that females become more employable when they are educated and also improved perceptions over time that women are not just home keepers but could take on specialized profession and contribute to the household income just as males.

Fig. 1 Primary school enrollment rate in Nigeria from 1961 to 2012

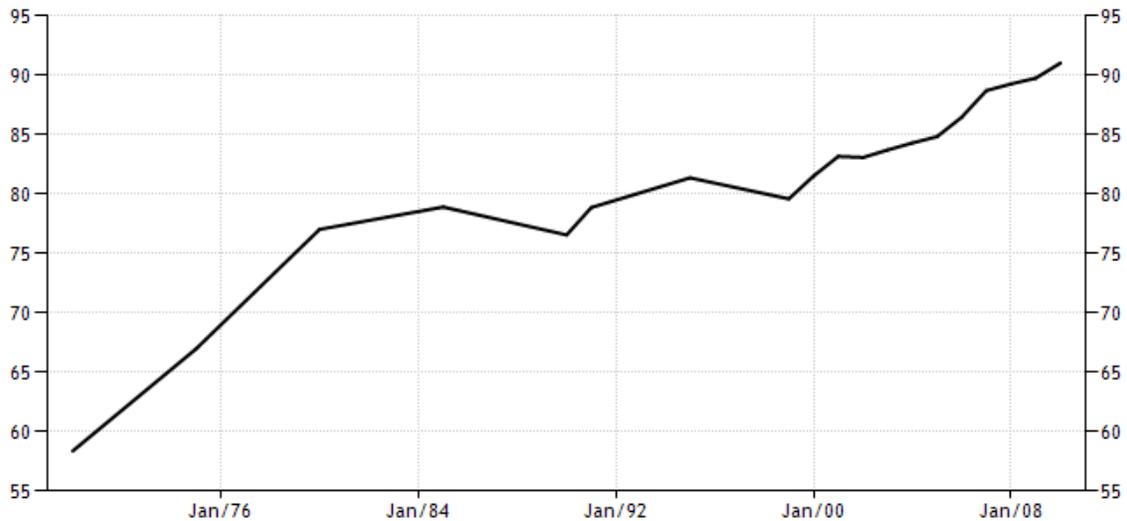


Source: World Bank statistics

Note: The figure above shows primary school enrollment for children between the ages of 0-15 years of age. The trend shows that school enrollment has been on the decline and has not been able to get back to highest peak of the mid 1980s.

Even though there have been improved perceptions against gender discrimination and on educating the girl child, the level of enrollment for girls still remains one of strong concern to policy makers who wish to address equal access to basic education for females, since studies still show that Africa's female enrollment rates still lag behind those of other regions see Ojeaga, Imohnopi and Omosefe (2013) and Ojeaga and Ogundipe (2013).

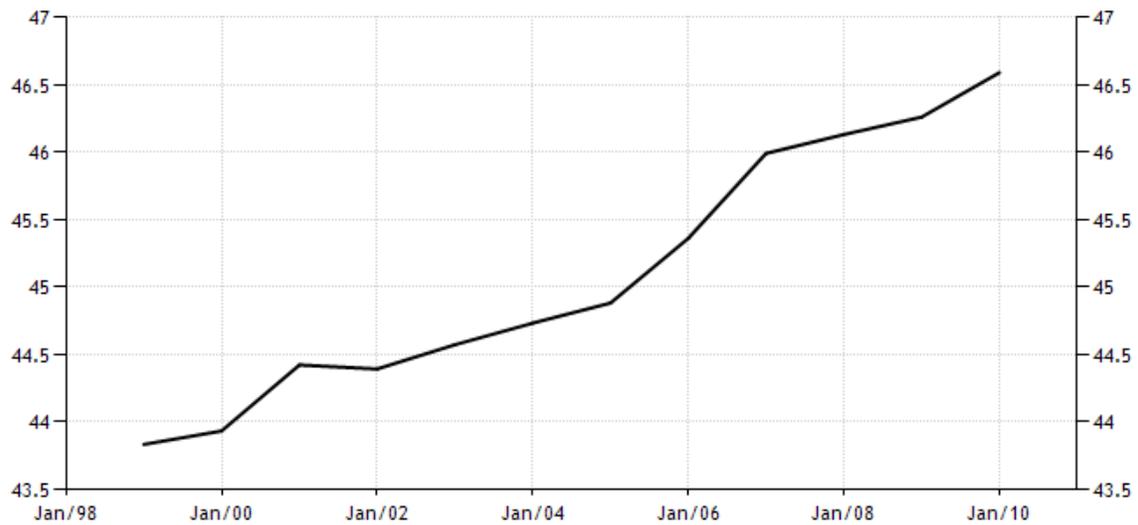
Fig.2 Ratio of Male to Female primary school enrollment in Nigeria 1966 to 2012



Source: World Bank Data

Note: Trends show that the ratio of female to male primary school enrollment has steadily been on the increase with noticeable increases from the early 2000s till date. This shows that female enrollment has almost caught up significantly with male enrollment particularly for the southern parts of the country.

Fig. 3 Female primary school enrollment rate in Nigeria from 1999 to 2010



Source: World Bank Data

Note: Female enrollment in primary schools has improved in a significant manner over the years, however trends suggest that enrollment for females currently stands at 46.5% as of 2010, showing that a greater percentage of girls were actually out of school.

Female school enrollment rate currently stands at 46.5 percent of the total eligible females that ought to be in school, showing that a greater percentage are actually out of school and not likely to receive basic educational training in their life time (World Bank statistics 2013). Schools are also probably the most sociable environments where children interact; it is highly unlikely that out of school youths are going to experience the same level of sociability as in-school youths. The trends show that if schooling is of any positive consequence in the sociability question it is likely that a greater percentage of girls are likely not to benefit adequately from the character formative stage that are likely to be developed during the basic education experience of a child Wachs (2004).

Studies have also consistently shown that school dropouts and youths who never had basic education are likely to exhibit dysfunctional behavioral characteristics as adults e.g. take to crime, violence and other forms of anti-social traits that are hostile in nature which could be attributable to poor extraversion in the early formative stage Shiner and Capsi (2003).

## ***5.0 Theory and methodology***

### *i.) Theory and Design*

Capsi, Shiner and Roberts (2005) study the relation between children temperament and adult behavior using a host of traits to analyze if children temperament has any connection with adult behavior. Hampson, Andrews, Barckley and Peterson (2007), used dummies constructed from a set of agreeable and disagreeable responses of a questionnaire survey to study the dynamics that affect child emotional stability and adult behavior by designing two constructs; sociability and hostility from factor analysis of teachers rating of children behavior using a linear regression model.

Few if any have tried to study the difference in sociability rating for in and out of school youths as well as how poor female school enrollment affect female sociability ratings as we do in this study. The study follows questionnaires responses served to youths between the ages of 10 to 30 years of age who were probably not in school at all, in their last year in the primary schools, in a secondary school or attending a tertiary institution or who were intending to gain entrance into one. Schooling was ascertained by taking note of the number of the population who were in school. Therefore the distribution of the questionnaires was randomized.

Sociability is measured from individual level of interaction among peers using different questions such as if they like having a friend, how long they kept friends and if their friends were of the same sex etc. To ascertain the extent to which this reduces gender discrimination we consider the results for females and males differently.

### *ii.) Methodology*

In this study we present a scenario where sociability will depend on a host of factors such as schooling, age, family background, religious affiliation and gender. The method of identification will now be one in which schools been a place of interaction among youths is likely to improve youth sociability ratings positively, family background is also likely to affect where youths live and the choice of friends they are likely to have since parents of the same social status are likely to be friends therefore their children are more likely to meet more often and become accustomed to one another and this could lead to friendship, religious affiliation is also likely to affect choice of friendship since places of worship are also social meeting places, therefore children of parents of the same religious denomination are also likely to meet more often. Finally same sex friendship is likely to form more easily than opposite sex friendship this can also be attributable to situations where teenagers have to live in same sex dormitories in elementary school and probably in tertiary institutions making them more likely to run into each other quite often therefore such meetings may lead to friendship and social interaction thereby allowing us to express sociability below, as a function of the above stated factors.

Sociability (Soc) will now be a function of  $f$  (*schooling (Sch)*, *age (Age)*, *family background (Fam)*, *religious affiliation (Rel)* and *gender (Gend)*). The model we estimate now becomes a

$$(1.) Soc_k = \alpha_1 Sch_k + \alpha_2 Age_k + \alpha_3 Fam_k + \alpha_4 Rel_k + \alpha_5 Gend_k + \epsilon_k$$

linear model where sociability depends on schooling, age, family background, religious affiliation and gender, other omitted variables that affect sociability are captured by the error term  $\epsilon_k$  where  $k$  is the index for youths. The method of estimation relied on is multivariate regression analysis.

## ***6.0 Data and sources***

Questionnaires are used to measure the various degrees of sociability among in and out of school youths a host of question were asked some include, do you mix freely? Are you outgoing? Do you have a close friend? How spontaneously do you make friends? How long do you're your last friend? Why did you end the friendships? Etc. In all a total of 200 respondents were interviewed at random, the male and female numbers interviewed were 100 respectively with 50 in school and 50 out of school.

The questionnaires also provide us with important information on gender, age, family background, schooling status and religious background of the respondent. The results obtain from the questions are converted into dummy variables assigning the value of 1 to questions where respondent agree and 0 to questions where they disagree. This allows us to capture the response measurement in a quantitative manner allowing us to gain insight on how various factors will affect sociability from a quantitative point of view. The data of dummies are available from the authors on request.

## ***7.0 Empirical analysis and results***

In this section we present an argument why we believe that there exist a strong connection between schooling and youth sociability in Nigeria. The fundamental logic that we put forward is that schools provide children with the opportunity to spend time with each other conducting various activities from learning ,playing as well as imitating one another making the level of interaction in schools to be quite high compared to that of any other social or meeting place. It is therefore expected that schooling will affect sociability in a significant manner for in-school youths.

### ***Results***

The table below show the response for some of the questions put forward in the questionnaire. It was found that about 60% of the respondent were willing to mix freely with their peers while,

about the same number were also outgoing depending on the degree of freedom they were entitled to from their guardian. Most were likely to have friends of the same sex with 10% stating that they do not care about the sex of their friends. About 75% cared about having friends of the same age brackets preferring their close age mates as friends than those who are either senior or junior to them. Also about 75% were likely to attend social functions were it was likely that they can meet peers and interact with one another and share ideas. The implication of the results show that a host of factors are likely to affect the sociability variable while some are likely to improve sociability among youths others are likely to have a reducing effect on sociability some examples are the fact that youths are not likely to make friends spontaneously and are also likely to consider religion in the choice of choosing a friend causing them to reduce interaction with youths of different religious backgrounds.

Table 1. Total response for youths interviewed

<i>Responses</i>	<i>Agree</i>	<i>Disagree</i>	<i>Indifferent</i>	<i>% agreed</i>	<i>% disagreed</i>	<i>% indifferent</i>
<i>Mix freely</i>	120	40	40	60	20	20
<i>Outgoing</i>	120	80	0	60	40	0
<i>Keep a close friend</i>	180	20	0	90	10	0
<i>Spontaneously friendly</i>	70	120	10	35	60	5
<i>Attend Social Function</i>	130	70	0	75	35	0
<i>Have same sex friend</i>	180	0	20	90	0	10
<i>Consider family background</i>	120	50	30	60	25	15
<i>Consider same religion</i>	137	60	3	68.5	30	1.5
<i>Consider the same age bracket</i>	130	10	60	75	5	30

Note: The total number of respondents is 200 with 50 randomly selected from in-school males, out of school male, in-school females and out of school females.

The results of the questionnaire for out of school female youths show that female youths out of school are less likely to interact with their peers compared to youths in school; they are also less likely to mix freely with only 49% out of school females stating they were willing to mix freely and about 58% agreeing that they were quite outgoing. Several factors were responsible for this it was likely that they were learning a hand trade making it less likely for them to have time to do so or that they were helping their parents out selling or farming. Those who were engaged in petty selling for their parents were found to be more sociable than those who were helping out in the farm.

Table 2. Total response for the questionnaire for out of school females

<i>Responses</i>	<i>Agree</i>	<i>Disagree</i>	<i>Indifferent</i>	<i>% agreed</i>	<i>% disagreed</i>	<i>% indifferent</i>
<i>Mix freely</i>	49	30	21	49	30	21
<i>Outgoing</i>	58	42	0	58	42	0
<i>Keep a close friend</i>	85	15	0	85	15	0
<i>Spontaneously friendly</i>	40	50	10	40	50	10
<i>Attend Social Function</i>	40	60	0	40	60	0
<i>Have same sex friend</i>	85	0	15	85	0	15
<i>Consider family background</i>	50	25	15	50	25	15
<i>Consider same religion</i>	60	38	2	60	38	2
<i>Consider the same age bracket</i>	50	5	45	50	5	45

Note: The total number of respondents is 200 with 50 randomly selected from in-school males, out of school male, in-school females and out of school females.

The results of the questionnaire for in-school female youths showed a higher level of sociability among in school female youths, this was however not surprising since they were likely to spend

Table 3. Total response for the questionnaire for in-school females

<i>Responses</i>	<i>Agree</i>	<i>Disagree</i>	<i>indifferent</i>	<i>% agreed</i>	<i>% disagreed</i>	<i>% indifferent</i>
<i>Mix freely</i>	71	10	19	71	10	19
<i>Outgoing</i>	68	32	0	68	32	0
<i>Keep a close friend</i>	95	5	0	95	5	0
<i>Spontaneously friendly</i>	30	70	0	30	70	0
<i>Attend Social Function</i>	90	10	0	90	10	0
<i>Have same sex friend</i>	95	0	5	95	0	5
<i>Consider family background</i>	70	25	5	70	25	5
<i>Consider same religion</i>	77	22	1	77	22	1
<i>Consider the same age bracket</i>	80	5	15	80	5	15

Note: The total number of respondents is 200 with 50 randomly selected from in-school males, out of school male, in-school females and out of school females.

more time interacting with one another through studying, playing and probably sharing lunch in school. The overall results for the in-school females show that they had a higher level of interaction than out of school females, while the case was not the same for males. The results for in-school and out of school males did not differ significantly. This is likely due to the fact that

out of school males were probably less restricted while under parental or guardian control than out of school females.

### *Regression Results*

The result of the regression of the impact of schooling on youth sociability for all youths in the sample is presented in table 4 column 1. The result shows that age, family background and gender were important to their choice of friends and were affecting sociability ratings among youths in a positive significant manner. Youths were also mindful of individual religious affiliation and this affected their choice of friendship and was limiting their willingness to interact with their peers of different religious background.

The result of the regression for out of school youths show that family background and gender where affecting choice of friendship see table 4 column 2. In-school youths were probably more concerned about individual family background and religious affiliation. Family background was found to have a weak significant effect on their choice of friendship while differences in religious affiliation was reducing interaction among youths significantly see table 4 column 3.

The impact of schooling on sociability ratings for in-school females was that schooling, common age brackets, family background, and gender consideration affected the choice of interaction for in-school females see table 4 column 4, while the case was the direct opposite for out of school females see table 4 column 5. The results for boys are left out for the sake of brevity as schooling had no significant effect on sociability for boys, however a negative co-efficient for out of school males was observed even though this result had little effect on sociability for males. The implications of these findings show that schooling was having strong effects on female sociability ratings in general since in-school youths were likely to mix more freely than out of school youths.

Table 4 Impact of schooling on youth sociability ratings

Variables	(1) Sociability All youths	(2) Sociability In-school males	(3) Sociability Out of school males	(4) Sociability In-school females	(5) Sociability Out of school females
Schooling	0.05 (0.07)	-0.13 (0.10)	-0.03 (0.12)	0.16* (0.09)	-0.08 (0.10)
Age	0.20*** (0.07)	0.11 (0.12)	0.15 (0.10)	0.50*** (0.13)	0.03 (0.10)
Family background	0.32*** (0.07)	0.32*** (0.08)	0.17* (0.10)	0.40*** (0.09)	0.15 (0.11)
Gender	0.18** (0.08)	0.54*** (0.10)	-0.18 (0.11)	0.23** (0.10)	0.20 (0.12)
Religion	-0.13* (0.07)	0.08 (0.10)	-0.37*** (0.09)	-0.13 (0.10)	-0.16 (0.11)
Constant	0.19* (0.10)	0.07 (0.15)	0.61*** (0.14)	-0.19 (0.16)	0.41*** (0.15)
Observations	200	50	50	50	50
R-squared	0.16	0.33	0.23	0.38	0.06

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## 8.0 Discussion

In this section we discuss the implication of the results for potential outcomes in adult behavior for youths under study. We rely on past literature already cited in this study particularly Shiner and Capsi (2003) and Wach (2004) who state that schooling is likely to have strong effects on the genetic adult behavior of individuals since schooling was probably promoting extraversion traits in youths and that the less sociable youths are in their formative years the likely that the lack of extraversion will have strong negative effects on their adult behavior, meaning the higher the likelihood they are going to exhibit dysfunctional behavioral traits in their adult stages of life. The results of this study portends that out of school youths and out of school females in particular are more likely to fall into this category since schooling is likely to be significant for their overall temperamental development and acceptance particularly in the Nigerian societal fabric.

Taking schooling seriously in the youth formative stages is likely to improve the overall behavioral composition of the larger society in the future as this could lead to less dysfunctional adult behavior, such as crime, bullying and other non conformist attitudes that adults are likely to exhibit, which could have been corrected earlier in their youth formative stages. The results of the study are also consistent with past findings that suggest strong evidence between childhood sociability and adult behavior Ozer and Benet-Martinez (2005) and that which states that moderate child stability is likely to have a strong effect on adult behavior DeVecchio and Robert (2000).

It is expected that the outcomes will be same for males even if the results we analyze do not show significant effect of schooling on sociability for males. It is likely that the out of school males in our population were probably engaged in some other form of informal training which was probably improving their sociability ratings better than those of the out of school females. Other factors also mentioned such as less parental control for males was also probably improving males sociability ratings in general. This was probably a major limitation in our study since we did not account for informal training or trade skill acquisition which was some form of informal schooling, rather we measured schooling from a formal western education style enrollment in public schools which was problematic and not a very good measure or representation of schooling for males.

## ***9.0 Conclusion***

The study reflects on gender comparison and sociability ratings among youths. The extent to which schooling affects sociability ratings particularly for females within the ages of 10 to 30 years old was considered. It was found that, out of school females were probably less sociable than in-school females. Issues such as religious affiliations, age brackets, gender and family backgrounds were taken into consideration by youths in their choice of friends and were probably factors that determined who they were likely to interact with.

The findings support previous findings by Wachs (2004) and Caspi, Shiner and Roberts (2005) who find a relation between children temperament and adult behavior, since schooling was also probably reducing gender discrimination among females because in-school females were probably less likely to be looked down upon and were also probably able to mix in a substantial manner with the rest of the female population.

The policy implication of the finding is that female education was probably quite important particularly in their early formative stages of life. This was also probably necessary in helping to build their self esteem which could have strong effects for their adult behavior since schooling is likely to improve qualities of extraversion in females.

## ***References***

- Ahadi, S.; Rothbart, M.K.(1994) "*Temperament, development and the Big Five*". In: Halverson, CF., Jr;Kohnstamm, D.; Martin, R., editors. *Development of the structure of temperament and personality from infancy to adulthood*. Hillsdale, NJ: Erlbaum; 1994. p. 189-208
- Caspi. (1998) "*Personality development across the life course*". In: Eisenberg, N., editor. *Handbook of Child development*". New York: Wiley; 1998. p. 311-388.

- Caspi A, Roberts B.W, Shiner R.L (2005). “*Personality development: Stability and change*”. Annual Review of Psychology 2005;56:453–484.
- Goldberg L.R. (1992) “*The development of markers for the Big-Five factor structure*”. Psychological Assessment 1992; 4:26–42.
- Harter, S. (1995) “*Manual for the Self Perception Profile for Children*”. University of Denver; 1985.
- Jensen-Campbell L.A, Graziano W.G.(2001) “*Agreeableness as a moderator of interpersonal conflict*”. Journal of Personality 2001;69:323–362. [PubMed: 11339802]
- Jensen-Campbell L.A, Adams R, Perry D.G, Workman K, Furdella JQ, Egan SK.(2002) “*Agreeableness, Extraversion, and peer relations in early adolescence: Winning friends and deflecting aggression*”. Journal of Research in Personality 2002;36:224–251.
- John, OP.; Srivastava, S.(1998) “*The Big Five taxonomy: History, measurement, and theoretical perspectives*”. In: Pervin, LA.; John, OP., editors. Handbook of Personality, Theory, and Research. 2. New York: Guilford; 1999. p. 102-138.
- John OP, Caspi A, Robins RW, Moffitt RE, Stouthamer-Loeber M. (1994) “*The “Little Five”: Exploring the nomological network of the Five-Factor model of personality in adolescent boys. Child Development*” 1994;65:160–178. [PubMed: 8131645]
- Kohnstamm, GA.; Halverson, CF.; Mervielde, I.; Avilla, V. (1998) “*Parental descriptions of child personality: Developmental antecedents of the Big Five?*”. Mahwah, NJ: Erlbaum; 1998.
- McCrae RR, Costa PT Jr. (1987) “*Validation of the five-factor model of personality across instruments and observers*”. Journal of Personality and Social Psychology 1987;52:81–90. [PubMed: 3820081]
- Measelle JR, John OP, Ablow JC, Cowan PA, Cowan CP. (2005) “*Can children provide coherent, stable, and valid self-reports on the Big Five dimensions? A longitudinal study from ages 5 to 7*”. Journal of Personality and Social Psychology 2005;89:90–106. [PubMed: 16060748]
- Mervielde, I.; De Fruyt, F. Assessing children’s traits with the Hierarchical Personality Inventory For Children. In: De Raad, B.; Perugini, M., editors. Big Five assessment. Ashland, OH: Hogrefe & Huber; 2002. p. 129-142.
- Muthén, LK.; Muthén, BO. (1998,2004) “*Mplus User’s Guide. 3*”. Los Angeles, CA: Muthén & Muthén; 1998 2004.
- Ojeaga (2013) “*Economic policy, does It help life expectancy? An African Evidence of The*

- Role of Economic Policy on Longevity*". IOSR Journal of Economics and Finance..
- Ozer DJ, Benet-Martínez V.(2005) "*Personality and prediction of consequential outcomes. Annual Review of Psychology*" 2005; 57:8.1–8.21
- Saucier G.(1994) "*Mini-markers: A brief version of Goldberg's unipolar Big-Five markers. Journal of Personality Assessment*" 1994; 63:506–516. [PubMed: 7844738]
- Shiner RL, Caspi A. (2003). "*Personality differences in childhood and adolescence: measurement, development, and consequences*". *Journal of Child Psychology and Psychiatry* 44:2–32.
- Trost, S. G., Kerr, L. M., Ward, D. S., & Pate, R. R. (2001). "*Physical activity and determinants of physical activity in obese and non-obese children*". *International Journal of Obesity and Related Metabolic Disorders*, 25, 822-829.
- Trost, S. G., Sirard, J. R., Dowda, M., Pfeiffer, K. A., & Pate, R. R. (2003). "*Physical activity in overweight and nonoverweight preschool children*". *International Journal of Obesity and Related Metabolic Disorders*, 27, 834-839.
- United States Department of Health and Human Services. (2000). "*Healthy People 2010*". Washington, DC: U.S. Government Printing Office.
- United States Department of Health and Human Services. (2007). "*Overweight and obesity*". Washington, DC: U.S. Government Printing Office. Retrieved December 1, 2007 from <http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/index.htm>
- Vieweg, V., Johnston, C., O'Lanier, J., Fernandez, A., & Pandurangi, A. (2007). "*Correlation between high risk obesity groups and low socioeconomic status in school children*". *Southern Medical Journal*, 100, 8-13
- Wachs, TD. Fit, (1994) "*Context, and the transition between temperament and personality. In: Halverson, CF., Jr; Kohnstamm, D.; Martin, R., editors. Development of the structure of temperament and personality from infancy to adulthood*". Hillsdale, NJ: Erlbaum; 1994. p. 209-220.
- Walker, HM. , McConnell, SR. Walker-McConnell (1995) "*Scale of Social Competence and School Adjustment*".San Diego, CA: Singular Publishing Group; 1995.