

Gender Differences on Self Estimation of Intelligent Quotient among Health Students at College of Health Technology Ogbia

Memory Queensoap¹, Dogitimiye Memory², Biobelemoye Godwin Gbarabe³, Williams Dayagha Ogbari⁴

Abstract

The study was carried out to determine gender differences on self-estimation of intelligence quotient at Bayelsa State College of Health Technology. The population of study was 1,481 students of college of health technology Otuogidi in Ogbia Local Government Area of Bayelsa State. A total sample of 315 students was randomly selected from the seven (7) departments in the school. The questionnaire and documentary sources were the instruments used for the collection of data and statistical package for social science (SPSS) was employed to analyze the data collected. The result of the analysis showed that females rated their fathers' IQ higher than how the males rated fathers. Also, the females estimate mothers' intelligence higher than their male counterpart and irrespective of gender participants rates their father more intelligence than their mothers and females rated themselves having higher IQ than males. Three null hypotheses were tested at 0.05, alpha level of significance. The result shows that there was no significant gender difference among participants on self, father and mother estimation of intelligence. Based on the findings, the following recommendations were made by the researcher. More in-depth studies need to be carry out on the field in determination of intelligent quotient among male students. Stop gender discrimination, we should not judge one another in term of intelligent. Students' IQ should be known at the point of admission into any of the program.

Key words: Gender, self-estimation, Intelligence Quotient (IQ), Stand ford Binet Intelligent test, professional departments and normal curve distribution.

1. Introduction

All over the world it is true that people tend to make self-estimation on their traits and abilities for the understanding of self-fulfilling prophecies, aspirations, achievements, and psychological well-being (Beyer & Bowden, 1997). This habit of man is not limited to himself but also go beyond making comparison between one another.

The issue of who is more intelligent between men and women has been hotly debated in every sphere of life (Denahue, n.d). Various studies have shown that men and women estimate their own intelligent quotient (IQ) score differently.

People judge other by saying that one person is more intelligent than the other and at times will see themselves more intelligent than the other. Intelligence is variously defined by different authors because it is a very elusive concept in psychology. To Hopkins and Antes in Orluwene (2012) intelligence is defined as the aggregate or global capacity of an individual to act purposely, to think rationally and to deal effectively

¹Department of science foundation, school of foundation studies, College of health technology

²Department of health information management technology, school of allied medical sciences, college of health technology

³Department of health information management technology, school of allied medical sciences, college of health technology

⁴Department of health information management technology, school of allied medical sciences, college of health technology

with the environment. Meanwhile the measure of intelligence is what psychologist refers as intelligent quotient. That is to say intelligent quotient is an index, of the way a person performs on a standardized intelligence test relative to the way other of his/ her age perform (Orluwene, 2012).

Consequently literature available have not shown gender differences on self-estimation of intelligent quotient among health students in Bayelsa state as it is widely observed in developed countries like United States, China, Britain, Belgium etc.(Petrides, Furnham & Martin, 2004). This study therefore examined self-estimates of intelligence in the context of gender.

The word gender refers to the state of being male or female, hence the study identified the ways that males and female estimates their own intelligence in terms of intelligent quotient against the background of the study.

It is common to observe that in casual conversation most people will insist that their own gender is more intelligent, this may not be the way people actually see intelligence. Not minding who is actually more intelligent, much can be learned about our society by observing the ways that people judge their own and others intelligence. Bayelsa state is one of the 36 states in Nigeria where feminine agitations are observed from time to time in every spheres of life.

So it is important to examine self-estimates of intelligence in the context of gender in the area of professionalism. Therefore, the researchers are determined to identify male and female estimates of their own intelligent quotients while as students undergoing professional training.

2. Literature Review

Intelligent Quotient is a measure of one's Intelligence. Intelligent is the ability to solve the problems and to adapt to and learn from life's every day experiences.

According to Orluwene (2012), Intelligence is among the most elusive field of testing, this means that various authors defined Intelligent as they perceive it.

Hopkins and Antes in Orluwene defined intelligence as the aggregate or global capacity of an individual to act purposely, to think rationally and to deal effectively with the environment.

Bearce (2009) highlighted what intelligence means as any of the following

- ❖ The ability to solve problems
- ❖ The capacity to adapt and learn from experiences
- ❖ Includes characteristics such as creativity and interpersonal skills
- ❖ The mental abilities that enable on to adapt to, shape, or select one's environment
- ❖ The ability to judge, comprehends, and reasons.
- ❖ The ability to understand and deal with people, objects and symbols.
- ❖ The ability to act purposefully, thinks rationally, and deals effectively with the environment.

It can be observed that a writer can give seven different definition of intelligence. At this instance Orluwene (2012) advocated that it is in error to judge one another in terms of intelligence when the meaning of the construct (intelligence) is not known.

This is an obvious fact that most people judge others by saying that one person is more intelligent than the other without knowing what intelligent is all about. To this end intelligent is the acquired potential to succeed in any given task.

Furthermore, Orluwene (2012) posited that the general public seems to use intelligent quotient (IQ) interchangeably with intelligence. Hetherington and Parke in Orluwene intelligent quotient is an index of the way a person performs on a standardized intelligence that relative to the way others of his or her age perform.

Orluwene in her account observed intelligent Quotient (IQ) as a measure of intelligence using an individual mental age in conjunction with his or her chronological age.

$$\text{Thus, IQ is computed as } IQ = \frac{MA \times 100}{CA}$$

People whose mental age is equal to their chronological age will always have an IQ of 100. If the chronological age exceeds mental age, the IQ is below average intelligence (below 100). If the mental age exceeds the chronological age, it is above average intelligence (above 100) (Bearce, 2009). The paper further pointed out that most of the population falls in the middle range of scores between 84 and 116 in the normal distribution.

The word gender has been used since the 14th century as a grammatical term, referring to classes of noun designated as masculine, feminine, or neutral in some language. The words gender and sex both have the sense the state of being male and female they are typically used in slightly different ways. Sex tends to refer biological differences while gender refers cultural or social one. In any way, this study bothers in the biological differences as well as social ones.

According to Idumange (2003) equality and justice are two cardinal principles under prising the Nigerian Constitution and the National Policy on Education. But in pragmatic terms, there exists a monumental gender imbalance in access to secondary education. Idumange argued that, in 1980, there were a total of 77,791 students enrolled in Nigerian universities. Out of this figure, female enrolment was 17,099, or 21.9%. In 1990, there were 48,855 females or 27.0% out of 180,871 students in Nigerian universities. This trend, according to Idumange has continued unabated. This situation has kept Nigeria into a competitive environment. Women agitation has increased yearly with the slogan that whatever a man can do women can do better. This fact remains unarguable that women have seen themselves more intelligent than men. This study therefore in no doubt purposely to identify gender differences in self estimation of their intelligence.

It has been reviewed that IQ is measured by a mathematical formula $MA/CA \times 100$. Never the less, to measure the mental age (MA) of an individual there are intelligence test that have been developed. These tests are administered on a one – to – one basis of one examiner and one student. Some of the standard intelligence tests that are individually administered are;

- ◆ Stanford – Binet intelligence tests.
- ◆ Wechsler intelligence scale (WIS) (Orluwene, 2012).

Stanford – Binet test was developed to identify children who had serious intellectual abilities, such that they would not succeed in the public school system and who should not be placed in the same classes with other students (Anonymous). Since inception of the Stanford – Binet, it has been revised several times. Currently, the test is in its fifth edition, which is called Stanford – Binet intelligence scales, fifth edition, or SB5. The SB5 was normed in a stratified random sample of 4,800 individuals that matches the 2000 U.S census (Santrock, 2008).

According to Orluwene, (2012); SB5 contains 15 subset organized into four cognitive areas, as in the following.

- ◆ Cognitive area 1 – verbal reasoning which covers four subsets viz; vocabulary, comprehension, absurdities and verbal relations.
- ◆ Cognitive area 2 covers quantitative reasoning which covers three subsets such as quantitative, number series and equation building.
- ◆ Cognitive area 3 – abstract/visual reasoning – pattern analysis, copying, matrices, paper folding and cutting.
- ◆ Cognitive area 4 – short term memory bead memory, memory for sentences, memory for digits and memory for objects.

The subsets scores are standard scores with a mean of 50 and a standard deviation of 16 (Kuliszyn and Bonch in Orluwene, 2012). This study adopted the standfordBinet scale of intelligence.

Empirically, Uzma and Tajammal (2013) conducted a comparative study of intelligence quotient and emotional intelligence: effect on employees' performance. In their study, they aimed at exploring the cognitive and emotional aspects of intelligence and its related behavioural and psychological outcomes on employee's performance. A cross sectional study based on 300 employees was used. The study findings reveal the nature of the relationship between individual's intelligence quotient level and their respective performance. However, the study was not able to decipher gender issues in intelligent quotient. Nasser, Singhal and Abouchedid (2008) conducted a study on gender differences on self – estimates of multiple intelligences: A Comparison between Indian and Lebanese youth. A sample of 648 Lebanese and 252 Indian students estimated their multiple intelligences based on Gardner's conceptualization. Data were analysed by using MANOVA and MANCOVA procedures. The study found that Lebanese male students self – estimated their intelligence somewhat higher than their females counterparts. However, this was not found true in the Indian sample. The study observed that cultural differences matter irrespective of the use of educational level as covariate. Nasser et al (2005) was not able to identify reconcile the different result emanating from the Lebanese students and Indian students.

Similarly, Petrides, Furnham and Martin (2004) dealt in estimates of emotional and psychometric intelligence; evidence for Gender – based stereotypes. 224 participants on a normal distribution ranging from 55 to 145 points of intelligence scale. The result of the study shows that no gender difference occurred in their total score. The analyses were done with mean, standard deviation, regression analysis, factor analysis and analysis of variance. This work was more detailed to contain estimates of participant's parent's intelligence.

Also Donahue (n.d) worked on gender and the perception of intelligence. This study examines actual gender difference as well as difference in perception of intelligence. The limitation of this study was that there was no clear cut design used.

In the light of the above, the researchers based their source of data and analytical method in the reviewed empirical studies.

3. Methods

This study was conducted with the aid of a descriptive-comparative research design, this is because the study tends to describe and compare intelligent quotient rating target in relation to gender that was obtain through the study instrument.

This study was conducted in Bayelsa State College of Health Technology OtuogidiOgbia Town.

The population of this study consists of all females and male students of the college. There are seven professional departments that made up the entire student population such departments include Medical Laboratory Science (MLS), Pharmaceutical Technician Studies (PTS), Public Health Nursing (PHN), Environment Health Sciences (EHS), Health Information Management Technology (HIMT), Community Health Science (CHS) and Dental Health Sciences (DHS). Record available show that the College has a population of 1481 (Registry Department, 2013)

At the instance of this grouping the study adopted a proportionate stratified sampling technique to select participants. The various departments form strata and from each stratum the needed sample size of 318 was selected by the use of simple random sampling technique.

The instrument used for data collection, was a modified standardized intelligent quotient scale, titled 'Questionnaire on self-estimation of intelligence Quotient'. This instrument is divided into two section, A and B. Section A required filling up of personal data; Gender, Department and L.G.A. Section B contains the main construct showing a brief description of the anchor scores of intelligent quotient adapted from Orluwene (2012). Participants were asked to rate their intelligence and that of their parents based on the normal curve

distribution. That is, they were presented with the normal curve and told the areas around the middle under the curve from -1 to 1 standard deviations which includes 68% of the population, -2 to 2 standard deviations about 96% of the population and from -3 to 3 about 100% of the population which ranged from 55 to 145 IQ units respectively. Thus, participants were to rate their intelligence and their parents intelligence, on a scale from 55 to 145 were 100 being the mid-point.

Prior to the administration of the questionnaire seven research assistants were recruited to assist in the face to face administration of the questionnaire. This was done to avoid undue probable influence from the researchers on the participants. Nevertheless, the seven research assistants were all briefed to explain in clear terms about the research to respondents and were told not to apply any form of coercion on them. Respondents were made to assemble in groups according to their departments in the college premises and asked to read instruction given on the instrument. Once they were clear about the task they were asked to respond to the instrument. All research assistants were aware of this procedure and went out to the field and did what was directed and came back with completed form however 25 questionnaires got missing and 10 invalid (respondents filling twice one an item) ones were identified. 283 valid questionnaires were returned for scoring and analysis.

The study used tables and simple percentage to present the demographic information while mean and standard deviation were used to analyze the four research questions. The three null hypotheses were tested with a two way analysis of variance at 0.05 chosen alpha of significance. Decision to reject the null hypotheses were based on if $p \leq 0.05$. The analyses were done with Statistical Package for Social Sciences (SPSS) version 20. However, the normality of the data was tested with Kolmogorov-Smirnov 0.05 level of significance and was significant.

4. Results

Table 4.1 Presentation of Demographic Information

| Variables | Frequency | Percentage |
|------------------|------------------|-------------------|
| Gender | | |
| Male | 125 | 44.22% |
| Female | 158 | 55.8% |
| Departments | Frequency | Percentage |
| MLS | 47 | 16.6 |
| PTS | 10 | 3.5 |
| CHS | 45 | 15.9 |
| DST | 25 | 8.8 |
| HIMT | 35 | 12.4 |
| PHN | 2 | 0.7 |
| EHS | 119 | 42.1 |
| L.G.A | Frequency | Percentage |
| Brass | 24 | 8.5 |
| Ekeremor | 25 | 8.8 |
| Kolokuma | 33 | 11.7 |
| Nembe | 42 | 14.8 |
| Yenegoa | 59 | 20.8 |
| Silga | 39 | 13.8 |
| Salga | 28 | 9.9 |
| Ogbia | 33 | 11.7 |

Table 4.1 above shows that there was 158 (55.8%) female participant for the study while male participants constitute 15(44.2%) of the total participants chosen for the study. The table 4.1 depicts the department of Environmental Health Science contributing 119(42.1%) of the participant for the study while Medical Laboratory Sciences, Community Health Sciences, Health Information Management Technology, Pharmacy Technician Studies and Public Health Nursing Department contribute to this study as 16.6%,15.9%,12.4%,8.8%,3.5% and 0.7% respectively. Table 4.1 also show participant distribution by Local Government Area, indicating Yenagoa L.G.A contributing 20.8% of total participants, while Nembe, Southern Ijaw, Ogbia, Kolokuma/Opokuma, Ekeremor, Sargbama and Brass L.G.A contribute 14.8%,13.8% ,11.7%,8.8%,9.9% and 8.5% respectively.

Table 4.2 Descriptive Statistics for Self, Father and Mother Estimates of IQ

| Intelligent Quotient | Gender | Mean \bar{x} | Std. Deviation (SD) | N. |
|----------------------|--------|----------------|---------------------|-----|
| Self | Male | 111.88 | 23.74 | 125 |
| | Female | 113.20 | 20.83 | 158 |
| | Total | 112.62 | 22.13 | 283 |
| Father | Male | 110.56 | 25.98 | 125 |
| | Female | 113.58 | 23.51 | 158 |
| | Total | 112.24 | 24.63 | 283 |
| Mother | Male | 103.98 | 24.79 | 125 |
| | Female | 108.83 | 23.59 | 158 |
| | Total | 106.81 | 24.19 | 283 |
| Total | Male | 108.81 | 25.02 | 375 |
| | Female | 111.87 | 22.73 | 474 |
| | Total | 110.52 | 23.80 | 849 |

Research Question

Question 1. How do males rate themselves more intelligent than their female counterparts?

Table 4.2 above shows the male and female means and standard deviations for the estimation of intelligent quotient for the participants self. The table 4.2 shows a total self-estimate mean of 112.62 and standard deviation of 22.13. From the table 4.2, male had a self-estimated mean of 111.88 and 23.74 standard deviation respectively, while the females had a mean of 113.20 and 20.83 standard deviation for themselves, indicating that females estimated themselves more intelligent than the males in Bayelsa State College of Health Technology.

Question 2. How do participants rate their fathers as intelligent?

Table 4.2 indicates that participants rate their father’s intelligence to be a mean of 112.24 which is above average intelligence. Looking at the table 4.2, male’s rate their father’s intelligence as 110.56 while females rated their father as 113.58. This suggests that females can rate their father higher than males.

Question 3. How do participants rate their mothers as intelligent?

Table 4.2 was directly observed to show that participants estimated their mothers’ intelligence as 106.69 and 24.19 mean and standard deviation respectively. The table 4.2 pointed out that males rated their mothers’ intelligent quotient as 103.98 while the females rated their mothers as 108.83, which means that the females rated their mothers higher than what the males could do.

Question 4. How do participants irrespective of gender rate their father as more intelligent than their mothers?

Table 4.2 clearly shows that participants, irrespective of gender, rated their fathers with a mean of 112.24 while rating their mothers on a mean of 106.69; indicating that their fathers are more intelligent than their mothers.

Table 4.3: 2-WAYS ANOVA Summary Table on Participants’ Self, Father and Mother Estimation of Intelligent Quotient

| Source of variation | Sum of Squares | df | Mean squares | F ratio | Sig | Chose Alpha | Decision reject HO p < .05 |
|---------------------------------------|--------------------|------------|--------------|---------|-----|-------------|----------------------------|
| Var 00002 (1Q estimates). | 6501.31 | 2 | 3250.66 | 5.81 | 003 | | Reject Ho |
| Var 00003 (gender) | 1959.23 | 1 | 1959.23 | 3.50 | 062 | 0.05 | Accept Ho |
| Var 0002*var 0003(interaction effect) | 434.737 | 2 | 217.37 | 0.388 | 678 | | Accept Ho |
| Error (within) | 471827.86 | 843 | 559.70 | | | | |
| Total | 10849944.00 | 849 | | | | | |

Table 4.3 shows that IQ estimates has sum of squares of 6501.31, df of 2, mean squares of 3250.61, F, ratio of 5.81 and a probability significant of 0.003 at 0.05 chosen alpha. The gender sources of variation has a sum of squares of 1159.23, df of 1, mean squares of 1959.23 F. Ratio of 3.50 and a P-value of 0.062 at 0.05 chosen alpha level while the interaction effect has a sum of squares of 434.737 df of 2, mean of squares of 217.37, F-ratio of 0.388 and P-value of 0.678 at .05 alpha chosen level. Table 4.3 was used to test the following hypothesis.

Null Hypothesis 1: There is no significant difference on self, father and mother estimation of intelligent quotient among participants.

Table 4.3 shows IQ estimations for self, mother and father which was observed as column (sources of variation) has a sum of square of 6501.310, df of 2, mean square of 3250.66, f – ratio of 5.81 and a p value of 0.000 at a chosen alpha of 0.05. This indicates that $p < 0.05$ hence the null hypothesis of no significant difference on self, father and mother estimation of intelligent quotient is rejected. This means that there is a significant difference of IQ estimation among participants.

Null Hypothesis 2: There is no significant gender difference on self-estimates of their intelligent quotient.

Table 4.3 gives a sum of squares of 1959.23, df of 1, mean squares of 1959.23, f- ratio of 3.5 and a p value of 0.06 at a chosen alpha of 0.05. Since $P > 0.05$ the null hypothesis of no significant gender difference on self-estimation is sustained or accepted. This means that there was no statistically significant difference between male and female self-estimates on their intelligent quotient.

Null Hypothesis 3: Gender and estimate of intelligent quotient on self, father and mother do not have significant interaction effect mong participants.

Table 4.3 identifies an interaction effects sum of squares of 434.74, df of 2, mean square of 217.369, F – ratio of 0.388 and significance probability of 0.68. Here, the p – value is greater than the chosen alpha of 0.05 ($P > 0.05$) hence the null hypothesis of no significant interaction effect on participants is sustained or accepted. This means that there was no statistically significant interaction effect of gender on the estimates of IQ among participants.

Post Hoc Tests Interpretation

Since the various estimates show significant difference among participants a post, Hic test was conducted for the two-analysis of variance.

Table 4.4: A Summary Table of Multiple Comparisons (Scheffe).

| (I) VAR. 0002 | (J) VAR. 00002 | Mean Difference | STD. Error | Sig. | 95% Confidence Level | |
|---------------|----------------|-----------------|------------|-------|----------------------|---------|
| *1.00 | 2.00 | 0.3710 | 1.98884 | 0.983 | - 4.5058 | 5.2479 |
| | *3.00 | 5.9258* | 1.98884 | 0.012 | 1.0490 | 10.8026 |
| 2.00 | 1.00 | 00.3710 | 1.98884 | 0.983 | - 5.2479 | 4.5058 |
| | 3.00 | 5.5548* | 1.98884 | 0.012 | 0.6779 | 10.4316 |
| 3.00 | 1.00 | -5.9258* | 1.98884 | 0.012 | - 10.8026 | -1.0490 |
| | 2.00 | -5.5548* | 1.98884 | 0.021 | -10.4316 | -0.6779 |

- The mean difference is significant at the 0.05 level.
- 1, 2 and 3 represent 1Q estimates of self, father and mother respectively.

Table 4.4 shows the Post HOC test of the significance that occurred among self, father and mother estimates. Scheffe and LSD (least significance difference) were used for this analysis. Table 4.4 identify a mean difference of 0.3710 between self-estimates and participant’s father estimates, 5.92 between self-estimates and participant’s mother estimates. The table 4.4 observed that mean difference between self and father was not significant while self and mother was significant, irrespective of gender. Also, table 4.4 observed, irrespective of gender, a significant mean difference between participant’s father’s estimates and mother’s estimates. Thus, irrespective of gender participants estimates offer their parent’s intelligence shows a statistically significant difference.

5. Discussion

The results of this present study show that there is a significant difference of overall IQ estimates among participants with females estimated themselves more intelligent than the males. This study, partly in line with the findings of Petrides et al (2004) that there was statistically significant gender differences in directly self-estimated overall IQ, with men giving significantly higher estimates than women. However, this current study defers in respect of the female giving higher estimate than the males but was not significant at .05 level of alpha level.

In line with Petrides et al. (2004), the study identifies that both genders rated their fathers as more intelligent than their mothers. Here we observed that the female ratings of both mother and father were higher than their male counterparts’ IQ ratings. This was not true with Nasser et al. (2008) whose findings revealed that Lebanese male students self-estimated their intelligence somewhat higher than their female counterparts. However this was not true with the Indian sample (Nasser et al., 2008). We can infer at this instance that gender self-estimate depends on some factors that need to be investigated. Such factors may be culture/belief system, exposure of participants, level of education, social indices etc. Similarly, Uzma and Tanjammal (2013) advocated that intelligent people were perceived to be successful as compared to less intelligent people however IQ is not the only thing to be measured about an individual. They further reported that IQ ignores some areas such as physical dexterity, expertise and other competences that may influence performance significantly. This present study reveals that self-estimates of participants IQ was above average irrespective of gender. It implies therefore that participants are intelligent and are expected to perform accordingly in their academic pursuit. Can this be true? Ordinarily this current study cannot establish this because participants estimated themselves the way they perceive to be. Uzima and Tanjammal argued that a person scoring with an average IQ can be more successful than an IQ genius this is because other factors are involved and IQ only provides authenticity about a person’s competency to evaluate and solve problem.

The result of the study shows that there was no statistically significant difference between male and female self-estimates on their intelligent Quotient, though there was an identified mean difference between female and male self-estimates which supports the assertion of Bearce (2009) who reports that the average IQ scores of boys and girls is virtually identical. Nevertheless, Bearce ascertained that girls as a group tend to be stronger in verbal fluency, in writing, in perpetual speed while boys as a group tend to be stronger in visual-

spatial processing, in science, and in mathematical problem solving. Vogel (n.d) also observed in her study that a substantial body of research confirms higher verbal ability in normally achieving females and higher visual-spatial and mathematical abilities in normally achieving males. However, the specific nature of gender differences varies by factors such as age, specific measure, magnitude, and variability within the groups. This study measured participants on the Stanford-Binet intelligent scale under the normal curve distribution and not on the components that made up the scale. Similarly, Bennett (2000, 1996) identified that significant gender differences can be observed when IQ estimations are tied to specific traits to be measured. Their position supports the finding of this current study of no significant gender difference on self-estimation of IQ. Meanwhile this finding corroborates the findings of Furnham and Fong (2000).

The result of Post Hoc test shows that irrespective of gender participants estimates for their parents intelligence show a statistically significant different indicating that their father are more intelligent than their mothers this findings corroboration those of Petrides et al (2004) who indicated that perception of intelligence are male normative. We discover that the females perceived that their fathers are more intelligent than their mothers but see themselves more intelligent than their male counterpart. This can lead us to affirm that the female students have the alertness to compete with the males students because it is paradoxical for them to see their fathers more intelligent than their mothers and yet still accord to themselves higher intelligence quotient, even though the difference is not statistically significant. Also this study is able to reveal that the female students are higher in their overall rating of IQ because the females rated themselves, their father, and mother higher than the male students do to themselves and parents. We discover that the study reveal participants, especially the female students for their self-estimates to be self-actualizing perceptions, aspirations, goals and psycho-social well-being (Beyer& Bowden, 1997; Beyer, 1990). The study affirms Bearce (2009) report that most of the population falls in the middle range scores between 84 and 116 by revealing the various IQ estimates of 112.62, 112.4, 106.81 and 110.52 for self, father, mother and overall total respectively in this current study.

6. Conclusion

Based on the above findings the following conclusions have been drawn.

- ◆ The females estimated themselves more intelligent than males.
- ◆ Participants irrespective of gender estimated their fathers more intelligent than their mothers.
- ◆ There was no statistically significant gender difference on self-estimates on their intelligent quotient.
- ◆ Participants self, father and mother estimates fall within the middle range of scores between 84 and 116.
- ◆ There is a significant difference between father and mother IQ estimates by the participants.
- ◆ Participants perceived themselves intelligent as they perceived their father but perceived more intelligent than their mother.

7. Recommendation

Based on the finding of the study the following recommendation have been made

- ◆ More in-depth studies need to be carried out in the field in determination of multiple intelligent quotients among the students.
- ◆ Researchers suggest that we should stop judging one another in terms of intelligent.
- ◆ Stop gender discrimination as regards to who can do best in solving a societal problem.
- ◆ Students' IQ should be known at the point of admission into any of the programs.

References

- (Anonymous).Standford-Binet intelligent scales. D013195.
- Bearce, K. H. (2009, personal communication).Intelligence.
- Bennett, M. (2000). Self-estimates and population estimates of ability in men and women.Australian journal of psychology, 52, 23-28.
- Bennett, M. (1996).Men's and Women's Self Estimates Intelligence.The Journal of Social Psychology 136, 411-412.
- Beyer, S. (1990).Gender Differences in the Accuracy of Self Evaluations of Performance. Journal of Personality and Social Psychology, 59, 960-970.
- Beyer, S.& Bowden, E. M. (1997).Gender differences in self-perceptions: Convergent evidence from three Measures of Accuracy and Bias. Personality and Social Psychology Bulletin, 23, 157-172.
- Danahue, R. (n.d). Gender and the Perception of Intelligence.Creighton University.
- Furnham, A. & Fong, G. (2000). Self-estimate and psychometrically measured intelligence: A cross-cultural and sex difference study. North American Journal of Psychology, 2, 1-10.
- Idumange, J. A. (2003).Equalizing male-female access to secondary education in the Niger Delter: a case study of Bayelsa State.Nigerian journal of empirical studies in psychology and education; (8): 23-27.ISSN:1595-4870.
- Nasser, R., Singhal, S. &Abouchedid, K. (2008). Gender differences on self-estimates of multiple intelligences: a comparison between Indian and Lebanese Youth. Journal of Social Sciences, 16(3): 235-243.
- Orluwene, G.W. (2012). Intelligence – meaning, categories, measures and classification in Fundamentals of Testing and Non-testing Tools in Education Psychology. Port Harcourt: Harey Publications.
- Petrides, K.V., Furnham, A., & Martin, G.N. (2004).Estimates of Emotional and Psychometric Intelligence: Evidence for Genders Based Stereotypes. The Journal of Social Psychology, 144,149-162.
- Santrock, J. W. (2008). A topical approach to life-span development, (4th Ed.). New York: McGraw-Hill.
- Uzma, H. G. &Tajammal, H. (2013). A comparative study of intelligence quotient and emotional intelligence: effect on employees' performance.Maxwell scientific organization.Asian Journal of Business management, 5 (1), 153-162.
- Vogel, S. A. (n.d). Gender Differences in Intelligence, Language, Visual-motor Abilities, and Academic Achievement in Students with Learning Disabilities.Department of Special Education, Eastern Michigan University, Ypsilanti.