

## STUDENTS' PERCEPTION OF COMPUTER- BASED TEST IN KOGI STATE UNIVERSITY: A QUANTITATIVE APPROACH

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### *Abstract*

In this study, the perception of students on computer-based test used by the Kogi State University, Anyigba, Kogi State, Nigeria is investigated. In order to achieve the objectives, a researcher designed questionnaire was the instrument used to gather data from randomly selected students of the institution sitting for the second semester GST examinations during the academic year 2013–2014. The data collected were analyzed using frequency counts, percentages and Likert rank order scale was used to test the hypothesis generated. The findings showed that a large number of respondents strongly agree that they spend less time doing online examination and their perception shows that online examination allows them to express their mind. Concerning perception that male students prefer computer-based test to paper and pencil examinations, so many respondents disagreed. Though a high number of respondent disagreed with the view that females consider computer-based test to be more stressful but a slightly higher number strongly agreed. However, a large number of respondents strongly disagreed on the view that females find it hard to concentrate than males during computer-based test. The overall findings indicated that gender does not have significant influence on students' views of computer-based testing/examination in KSU. Gender should not be regarded as an issue when considering computer-based test in Kogi State University as perceived by a high number of respondents. As such, this study recommends that ICT training and awareness should be adequately given to the students prior to the period of computer-based testing and the authorities should work towards stabilizing electricity supply in the institution.

**Keywords: Computer-based test, Kogi State University**

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## 1. Introduction

Tests and examinations are a central feature of school systems in many countries (Sohaib (2013)). It is generally recognized that examinations determine the extent to which educational objectives have been achieved as well as the extent to which educational institutions have served the needs of community and society (Shah, 2002). Examinations are not limited to measure educational or societal objectives and needs but incorporate in a way of coping with the educational system (Havens, 2002). Rehmani (2003) briefly described that 'examinations play a significant role in determining what goes on in the classroom in terms of what, and how teachers teach and students learn and can have impact on both teaching and learning'. Wikipedia used test or examinations as alternative terms of assessment and defined it as: 'test or an examination (or exam) is an assessment indeed to measure a test-takers knowledge, skill, aptitude, physical, fitness or classification in many other topics' (Jamil, Tariq, Shami, 2012).

Various examination methods used in higher education institutions to assess academic progress include paper-pencil-based examinations, assignments, presentations, and etc. However, globally, universities are increasingly adopting computer-based testing (CBT) to replace the traditional paper and pen testing for academic assessment of students (Best, 2002; Ricketts and Wilks, 2002; Bampton, 2004; Walker and Delious, 2004; Bertolo and Lambert, 2007; McLaughlin, Kerr and Howie, 2007; Sieber and Young, 2008). The rapid adoption is due to the numerous advantages the schools derived from CBT over the traditional paper and pen testing considering the large population of students. Some of the advantages include: increased delivery, administration and scoring efficiency, improved test security, consistency and reliability, faster response rate to mention a few (Riku, Laurif and Ari, 2001).

Like other universities around the world, Kogi State University (KSU) has adopted computer-based testing and it has helped to reduce the burden of academic and non-academic staff in conducting examinations purposefully, especially general studies examination (GST). This technology based assessment provide opportunities to measure complex form of knowledge and reasoning that is not possible to engage and assess through traditional methods. Therefore, it was significantly important to assess student performance in the use of this computer-based examinations.

The timing of this study is particularly important since a large number of student in KSU will be examined on the general studies (GST) course for the 2013/2014 second semester session. Students' perception must first be taken into consideration before the technology is more widely used in the institution.

### 1.1 Objective of the Study

The primary object of this study was to investigate the general views of students on the use of computer-based testing/examination in Kogi State University, Anyigba, Nigeria. The specific objective is to examine the influence of students' gender on the students' views of computer-based testing/examination in the University.

### 1.2 Research Questions

- i. Do males prefer computer-based test to paper and pencil examinations?
- ii. Do females consider computer-based test to be more stressful?
- iii. Do females find it hard to concentrate than males during computer-based test?

### 1.3 Statement of Hypothesis

H<sub>0</sub>: Gender does not have significant influence on students' views of computer-based testing/examination in KSU.

H<sub>1</sub>: Gender has significant influence on students' views of computer-based testing/examination in KSU

## 2. REVIEW OF LITERATURE

According to Fluck, Pullen and Harper (2009) '... educators must consider which assessment techniques permit students to utilize the affordances of new technology'. The authors conducted an e-examination for the students of 4-year Bachelor of Education Program at the University of Tasmania. Students' (N=270) achievement was assessed through two equally weighted activities: first was a home assignment in which students explored learning content through the use of ICT and the second activity was a 2 hour test comprised of 14 questions based on all the material in the unit. At the end of the test, a single page survey with five questions was offered to students. Survey indicated that 38% of the survey respondents had previously taken a CB exam, 78% had used the practice CD before e-examination and 71% had found it very or

moderately useful. The valid responses (N=230) indicated that 94.5% preferred CBT. The prior exposure to CBT was a highly significant factor for preferring the computer medium. Karadeniz (2009) studied the impact of paper based, web based and mobile based assessment on students' achievement. A group of 38 students were experimented for 3 weeks. Significant differences were found between the scores achieved by the students in second week, but not in first week. It was perceived by the authors that students had positive attitude towards web based and mobile based assessment due to ease of use, comprehensive and instant feedback. Moreover, most favoured tests were web based and the least favoured were paper based (Jamil, Tariq, Shami, 2012).

The National University of Singapore introduced computer-based testing (CBT) in 2004. Lim, et al (2006) examined medical students' attitude about CB VS PB testing. Through an online survey 213 (53.5%) final-year MBBS students were tested out of which 91 (79.8%) preferred CBT, 11 (9.6%) preferred paper-and-pencil (PNP) format and 12 (10.5%) were unsure. Authors further explained that 42 indicated that 42 liked CBT because of good quality of images and independent of assigned seating positions; 22 liked because they could proceed at their own pace; one stated that CBT examinations was fun; 4 enjoyed the convenience of CBT and 6 cited "equality" as the reason they preferred CBT over PNP testing. Bodmann and Robinson (2004) conducted an experimental study to compare speed and performances differences among computer-based (CBTs) and paper-pencil tests (PPTs). In experiment fifty-five undergraduate students enrolled in the subject of educational psychology, participated in the studies which were already familiar with computer-based tests. Both CBTs and PPTs contained 30 MCQs items with 35 minute of time limit. Approximately half class (28 students) took the first test on the computer and rest preferred first test on paper. Procedures shifted for the second tests, with the first group receive PPTs and second group CBTs with a gap of two weeks. It was concluded that undergraduates completed the CBT faster than PBT with no difference in scores. Koppel and Hollister conducted a study to examine the impact on student performance of a computer-based assessment (CBA) as compared to a traditional testing method. Three different research tool were used in the study to collect and interpret results i.e., questionnaires completed by students to express their CBA experiences; faculty interviews who had administered computer-based test to determine students' perceptions of using this medium of testing and

analysis of students test scores in both conventional paper-based tests (PBT) and CBA(Jamil, Tariq, Shami, 2012).

Total 133 students out of which 91 have no prior experience of CBA and remaining 42 had experienced the same in their previous courses. The Excel CBA was comprised of 25 items was constructed. Students' scores on CBA were automatically recorded which included overall scores achieved. Grades on CBA were based on students' ability to complete a specific skill-based operation in the application of MS Excel. CBA was administered in one class period, at the end of the exam students reviewed their results. PBT was administered in the next class period. The PBT were examined manually by viewing the printout and actual Excel file containing the completed examinations. Results of PBT were recorded physically by noting the required information in an Excel sheet. Grades on the PBT were based on the final product submitted by each student as opposed to how each task was performed. On the question of ease of use, majority of the students (59%) found the software to be easy, 29% found it to be moderate and 12% the software to be somewhat difficult to use. Interpreting the range of skills, 76% responded that CBA was more effective test. Evaluating the difficult of question paper 65% responded that question paper were moderated, 34% of the students felt the automatic grading system was fair while 39% didn't find the grading fair. Only 19% felt that CBA negatively impacted their performance(Jamil, Tariq, Shami, 2012). Only 14% students found CBA easier while 49% found it difficult or more difficult. Total 58% preferred CBA and 42% preferred PBT. Faculty perceived to be more positive towards CBA in terms of less time writing exams, reduce grading time, simple method of record keeping of grades and improved validity of test validity through post-test statistical analysis.

Calarina and Wallace (2002) investigated to confirm several key factors in computer-based versus paper-based assessment. Factors of the study were content familiarity, computer familiarity, competitiveness, and gender. The study used a post-test only designed with one factor, test mode (Computer-based and paper-based). Students' score on 100-item multiple choice items and students' self-report on a distance learning survey were treated as dependent variables. Four sections of Computer Fundamental Course consisting of 105 students were selected as sample of the investigations. Results showed that computer-based test delivery impacted positively on students' scores as compared to paper-based test. From the abstract of the

study, it was found that ANOVA of test data showed that the computer-based test group outperformed the paper-based test group. Gender, competitiveness, and computer familiarity were not related to this performance difference, though content familiarity was (Jamil, Tariq, Shami, 2012).

Although computer based testing have been introduced in many Nigerian Universities, there are little or no literature about the student's perception on this technology assessment let alone studies conduct on Kogi State University, Anyigba. This study is intended to add to knowledge in that regard.

### 3. Area of Study

Kogi State University (KSU), is located in Anyigba, Dekina Local Government Area of Kogi State, Nigeria. It is a top ranking State University in Nigeria and indeed the nation's pride. Established in 2000, the university has grown tremendously, stretching its academic disciplines and research across eight different schools and over thirty academic departments. One of the aspirations of the Universities is to use first class and state-of-the-art facilities, highly motivated staff and students working in an atmosphere of academic freedom and security to transform the University into a world class centre.

#### 3.1 Limitations of study

Few limitations must be considered when involves in this research study and that is only focused on student of 100 level. Some of them have had prior computer knowledge while some do not have access to computer or own a personal computer. Also, the study made use of 242 samples, perhaps an increase in the number of samples could bring about more authentic results.

### 4. Methodology

This research was carried out among the undergraduate students of KSU using quantitative approach. The sample of this study are student who were sitting for the second semester GST examinations during the academic year 2013–2014. The students consented to partake in the survey were interviewed using a structured questionnaire, which was administered by some trained assistants at the KSU Digital centre where the CBT was conducted. Appropriate

adjustments were made to the questionnaire to improve its internal validity. Completed questionnaires were scrutinized on the spot and at the end of the daily field session for immediate correction of erroneous entry.

The instrument was a structured questionnaire which contained 18 items and was divided into three sections. The first section included personal data related to students' age, department, level, gender, ownership of a personal computer, computer training experience. The other sections were used to obtain information related to (a) Students' views on the use of computer-based test in KSU (b) Students' views on the influence of gender on computer-based test in KSU. More specifically, the second and third section of the questionnaire used a Likert-type scale from 1 to 4 (with response options as follows: strongly agree, agree, disagree, strongly disagree). 300 questionnaires were distributed, out of this number, 246 were returned. Among the returned questionnaire, 4 were blank. The correctly filled questionnaires were 242. That was the number of questionnaires used for the analysis. The data obtained were analysed using frequency counts and percentages while Likert scale was used to test the hypothesis which the study sought to answer and test respectively.

## 5. Discussion of Result

**Table 1: Distribution of Respondents based on Gender**

Gender	Frequency	Percent
Males	132	54.5
Females	110	45.5
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

Table 1 above show that out of the 242 sampled respondents, 132 are male students and this account for 54.5% while 45.5% are female students numbering 110.

**Table 2: Age Bracket of Respondents**

Years of Age	Number of Students	Percent
18yrs – 25yrs	223	92.2
26yrs – 30yrs	18	7.4
31yrs – 35yrs	1	0.4
Above 40yrs	0	0
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

Table 2 above reveals that respondent whose age group is between 18 – 25 years are 223 in number. This age range of students are the most active group of respondents (92.2%). 7.4% (18) of the respondents fell within the age range of 26-30 years. Other respondents with their various age range are as follows: 31-35 (0.4%) and above 40 years (0%), numbering 1 and 0 respectively. This shows that the respondents are of youthful age.

**Table 3: Distribution of Respondents by Level**

	Number of Students	Percent
100 level	209	86.4
200 level	29	12.0
300 level	3	1.2
400 level	1	0.4
<b>Total</b>	242	100

Source: Field Survey, 2014.

Table 3 shows that 86.4% of the students that responded were 100 level students and they were 209 in number. This is because the course is a 100 level course. Other students from other level that responded were carrying over the course. The percentage are as follows: 12% (200 level), 1.2% (300 level) 0.4% (400 level) numbering 29, 3 and 1 students respectively.

**Table 4: Distribution of Respondents based on Faculty**

	Number of students	Percent
Arts and Humanities	71	29.3
Management Sciences	77	31.8
Social Sciences	32	13.2
Natural Sciences	23	9.5
Agriculture	7	3.0
Education	31	12.8
Law	1	0.4
<b>Total</b>	242	100

Source: Field Survey, 2014.

As depicted in Table 4, majority of students that responded were from Management Sciences and Arts and Humanities faculties. This justified by the total number of 77 and 71 respondents. This figures account for 31.8% and 29.3% respectively. Other faculties include Social Sciences (32), Natural Sciences (23), Agriculture (7), Education (31) and Law (1), representing 13.2%, 9.5%, 3.0%, 12.8% and 0.4% of the respondents respectively. A further analysis in Table 5 shows that out of the 71 number of respondents which made up 29.3% of



the respondents from faculty of Arts and Humanities , 6 students were from department of Arabic and Islamic Studies, 5 students from department of Theatre Arts, 6 students from English & Literary Studies department, 10 students from department of History and International Studies, and 44 students from department of Philosophy and Religious Studies.

A breakdown of the 31 student respondents from faculty of Education reveals that 2 students were from department of Mathematics, 6 students from Human Kinetics and Health Education department, and 6 students from Geography department. Economics department had 1 student, 2 students came from Library Information Science, English department had 1 student, Social Studies department had 7 students, 4 students were from department of Christian Religious Studies while Islamic Studies Education department had 2 students.

From faculty of Law, the only (1) student that responded was from department of Common Law. In faculty of Agriculture, department of Home Science, department of Fisheries and Aquaculture, and department of B. Agriculture had 1, 1, and 5 students that responded respectively. Totaling 7 in number. Faculty of Natural Sciences had 4,5,4 and 10 students responding from department of Biological Sciences, Physics, Industrial Chemistry and Mathematics respectively, amounting to 23 respondents. Faculty of Social Sciences had 13, 2, 3, 6 and 8 students responding from Sociology, Geography and Planning, Mass Communication, Political Sciences and Economic department respectively, giving a total of 32 respondents.

Finally, a closer examination shows that 5, 18, 23 and 31 students responded from department of Banking and Finance, Public Administration, Business Management and Accounting respectively all in the faculty of Management Sciences. The total figure of respondents were 77.

#### 5: Distribution of Respondents by Department

1) Departments in Faculty of Arts and Humanities	Number of Students
a) Arabic & Islamic Studies	6
b) Theatre Arts	5
c) English & Literary Studies	6
d) History & International Studies	10
e) Philosophy & Religious Studies	44
<b>Total</b>	<b>71</b>
2) Departments in Faculty of Education	
a) Mathematics	2

b) Human Kinetics & Health Education	6
c) Geography	6
d) Economics	1
e) Library Information Science	2
f) English	1
f) Social Studies	7
g) Christian Religious Studies	4
h) Islamic Studies Education	2
<b>Total</b>	<b>31</b>
<b>3) Departments in Faculty of Law</b>	
a) Common Law	1
<b>Total</b>	<b>1</b>
<b>4) Departments in Faculty of Agriculture</b>	
a) Home Science	1
b) Fisheries & Aquaculture	1
c) B. Agriculture	5
<b>Total</b>	<b>7</b>
<b>5) Departments in Faculty of Natural Sciences</b>	
a) Biological Sciences	4
b) Physics	5
c) Industrial Chemistry	4
d) Mathematic Sciences	10
<b>Total</b>	<b>23</b>
<b>6) Departments in Faculty of Social Science</b>	
a) Sociology	13
b) Geography & Planning	2
c) Mass Communication	3
d) Political Science	6
e) Economics	8
<b>Total</b>	<b>32</b>
<b>7) Departments in Faculty of Management Science</b>	
a) Banking & Finance	5
b) Public Administration	18
c) Business Management	23
d) Accounting	31
<b>Total</b>	<b>77</b>
<b>Grand Total</b>	<b>242</b>

Source: Field Survey, 2014.

	Number of responses	Percentage
<b>Yes</b>	<b>85</b>	<b>35.1</b>
<b>No</b>	<b>157</b>	<b>64.9</b>
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

The questionnaire was intended to find out if respondents owned personal computer. From the presentation of data above in Table 6, it is observed that 85 of the student respondents affirmed that they owned personal computers. This figure account for 35.1% while 64.9% representing 157 respondents who do not own personal computer.

	Number of responses	Percentage
<b>Yes</b>	<b>171</b>	<b>70.7</b>
<b>No</b>	<b>71</b>	<b>29.3</b>
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

The questionnaire was also intended to find out if the respondents ever had computer training experience. Table 7 above shows that 171 students which accounted for 70.7% of respondents said that they had computer training experience. On the other hand, about 29.3% said that they never had computer experience prior to the Computer-based test. Overall, majority of the respondents had computer training experience.

Options	Frequency	Percentage
<b>Strongly Agree</b>	<b>152</b>	<b>62.809</b>
<b>Agree</b>	44	18.182
<b>Disagree</b>	12	4.959
<b>Strongly Disagree</b>	17	7.025
<b>No response</b>	17	7.025
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

Respondents were asked of their views concerning online and manual registration of their courses. The responses were diverse but points to the fact that majority prefer online over manual registration of courses as shown in Table 8. Precisely, 152 respondents strongly agree that they prefer online registration of course to manual registration. In the same vein, 44 respondents agreed on the preference of online registration of courses over manual registration. However, 12 respondents disagreed while 17 respondents strongly disagreed. Meaning that they prefer manual registration of courses as against online registration. 17 respondents chose not to respond to the question. This could be as a result of indifference.

**Table 9: I prefer writing all examinations online (computer based test)**

Options	Frequency	Percentage
Strongly Agree	61	25.207
Agree	30	12.397
Disagree	60	24.793
Strongly Disagree	65	26.859
No response	26	10.744
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

Table 9 shows the responses of respondents when asked if they prefer writing all examinations online. 30 respondents agreed on the idea while 61 respondents strongly agreed. Nevertheless, 60 respondents disagreed on writing all their examinations online while 65 respondents strongly disagreed. 26 respondents out of a total of 242 refused to express their views on this question.

**Table 10: I spend less time when doing online examination**

	Frequency	Percentage
<b>Strongly Agree</b>	107	44.2
<b>Agree</b>	48	19.8
<b>Disagree</b>	35	14.5
<b>Strongly Disagree</b>	19	7.9
<b>No response</b>	33	13.6
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

From the Table 10, 44.2% of the respondents strongly agree that they spend less time doing online examination. 19.8% of the respondents agree but not strongly that they spend less time when doing online examination. On the contrary, 14.5% disagree while the strongly disagree respondents made up 7.9%. For reasons best known to them, 33 respondents decided not to respond on this issue.

**Table 11: I am more comfortable with taking CBT examination than paper-pencil based one**

	Frequency	Percentage
<b>Strongly Agree</b>	59	24.38
<b>Agree</b>	27	11.16
<b>Disagree</b>	66	27.27
<b>Strongly Disagree</b>	59	24.38
<b>No response</b>	31	12.81
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

27.3 % respondents disagreed as indicated in Table 11 above that they are more comfortable with taking CBT examination than paper-pencil based one. In addition, 59 respondents making about 24.4% strongly disagreed. However, 11.2% agreed that they are more comfortable taking CBT examinations. 59 respondents accounting for 22.4% strongly agreed.

**Table 12: Online examination does not allow me to express my mind**

Options	Frequency	Percentage
Strongly Agree	121	50.00
Agree	35	14.46
Disagree	28	11.57
Strongly Disagree	31	12.81
No response	27	11.16
<b>Total</b>	<b>242</b>	<b>100</b>

Table 12 shows the respondent's perception on whether online examination does not allow them to express their mind. The Likert scale was applied to analyse the response. On a 4-point scale response, the options of the respondents were summed up. About 14.5% agreed that online examination allows them express their mind while 50% of the respondents strongly agreed. A closer examination of the table shows that 11.6% disagree and 12.8% strongly disagree. 11.2% of respondents showed no response on this subject.

**Table 13: Females consider computer-based test to be more stressful**

Options	Frequency	Percentage
Strongly Agree	63	26.03
Agree	48	19.83
Disagree	62	25.62
Strongly Disagree	42	17.36
No response	27	11.16
<b>Total</b>	<b>242</b>	<b>100</b>

Source: Field Survey, 2014.

On the view that females consider computer-based test to be more stressful. Table 13 above indicates that 48 respondents from the total 242 respondents expressed that they strongly agree females see CBT to be more stressful. 63 respondents were strongly in agreement with this view. Conversely, 62 respondents disagree and 42 respondents strongly disagree about this view. This is more glaring when asked in the table below about gender influence on views on CBT.

Table 14: Gender does not influence my views on computer-based test

	Frequency	Percentage
Strongly Agree	106	43.8
Agree	76	31.4
Disagree	18	7.4
Strongly Disagree	13	5.4
No response	29	12.0
Total	242	100

Source: Field Survey, 2014.

Table 14 revealed that 106 respondents totaling about 43.8% strongly agreed that gender does not influence their views on CBT. 31.4%, that is, 76 respondents also agreed. 12% of the respondents chose not to respond on this issue but 7.4% disagree while 5.4% strongly disagreed. On the male counterpart prefer for computer-based test to paper and pencil examinations, Table 15 below shows that 37 respondents agreed while 57 strongly agreed. On the other hand, 78 respondents expressed disagreement and 37 respondent more (strongly) disagreement. 33 respondents were silent about this issue

Table 15: Males prefer computer-based test to paper and pencil examinations

Options	Frequency	Percentage
Strongly Agree	57	23.55
Agree	37	15.29
Disagree	78	32.23
Strongly Disagree	37	15.29
No response	33	13.64
Total	242	100

Source: Field Survey, 2014.

Table 16: Females find it hard to concentrate than males during computer-based test

Options	Frequency	Percentage
Strongly Agree	38	15.70
Agree	42	17.36
Disagree	59	24.38
Strongly Disagree	62	25.62
No response	41	16.94
Total	242	100

Source: Field Survey, 2014.

According to the Table 16 above, 59 respondents disagreed but 62 respondents strongly disagreed that female students find it hard to concentrate than males during computer-based test. However, 42 respondents agreed while 38 respondents strongly agreed on the opinion. 41 respondents did not express their views on this question.

Table 17: Gender should not be regarded as an issue when considering computer-based test in Kogi State University

Options	Frequency	Percentage
Strongly Agree	61	25.207
Agree	30	12.397
Disagree	60	24.793
Strongly Disagree	65	26.859
No response	26	10.744
Total	242	100

Source: Field Survey, 2014.

Finally in Table 17, 30 respondents agreed and 61 respondents strongly agreed that gender should not be regarded as an issue when considering CBT in Kogi State University. 26 respondents did not give any answer to this question. The Table showed that 60 respondents disagreed while 66 strongly disagreed on it.

### Hypotheses Testing

To show whether gender does not have significant influence on students' views of computer-based testing/examination KSU. The hypothesis was tested using question 2 in Section C of the questionnaire and employing Chi-square technique. A little of this question was analyzed already in Tables14. Using the Likert scale, the contingency table is shown in Table 18.

Responses	Frequency (Fo)	Scale (X)	(FoX)
Strongly Agree	106	5	530
Agree	76	4	304
Disagree	18	3	54
Strongly Disagree	13	2	26
No Response	29	1	29
<b>Total</b>	<b>242</b>	<b>15</b>	<b>943</b>

$$\text{The Likert scale} = \frac{\sum FX}{N}$$

Where,  $\sum FX$  = the weighted sum of frequency

$N$  = the total responses

$$\text{The mean point} = \frac{\sum FX}{N} = 943/242 = 3.10$$

$$\text{The mean point of scale} = \frac{\sum X}{N} = 15/3 = 3$$

Cut off point of scale = mean point of scale at 5 percent error term = 7.82

If the calculated mean point is above the cut-off point, we accept the alternative hypothesis. If the calculated mean point is below the cut-off point, we accept the null hypothesis.

Since the calculated mean point of 3.06 is lower than the cut-off point of 7.82, it shows that gender does not have significant influence on students' views of computer-based testing/examination in KSU. This is in line with the responses of 106 respondents that totaled about 43.8% which strongly agreed as shown in Table 14.

#### 4. SUMMARY, CONCLUSION AND IMPLICATION OF FINDINGS

This study set out to investigate the general views of students on the use of computer-based testing in Kogi State University, Anyigba, Nigeria. Respondents were asked of their views concerning online and manual registration of their courses. The responses were diverse but points to the fact that majority prefer online over manual registration of courses and a high percentage of respondents prefer writing all examinations online. A huge number of respondents strongly agree that they spend less time doing online examination and their perception shows that online examination allows them to express their mind. Concerning perception that male students prefer computer-based test to paper and pencil examinations, so many respondents disagreed. Though a high number of respondent disagreed with the viewed that females consider computer-based test to be more stressful but a slightly higher number strongly agreed. However, a large number of respondents strongly disagreed on the view that females find it hard to concentrate than males during computer-based test. The overall findings indicated that gender does not have significant influence on students' views of computer-based testing/examination in KSU. Gender should not be regarded as an issue when considering computer-based test in Kogi State University as perceived by a high number of respondents.

In conclusion, the growing population of students in Kogi state University ensures the need for an automatic means of assessment. Computer-Based Test approach is believed to offer such automatic assessment. It can also be used to promote more effective learning by testing a range of skills, knowledge and understanding. Effort should be made for it to be applied in more courses in Kogi state university. As such, this study recommends that ICT training and awareness should be adequately given to the students prior to the period of computer-based testing and the authorities should work towards stabilizing electricity supply in the institution.



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