# Teachers' Perception in Teaching Large Class Sizes at Undergraduate First Year Regular Students in Some Selected Private and Public Higher Learning Institutions in Eastern Ethiopia and Its Implication on Quality Education 

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#### Abstract

This study was designed to investigate the perception of teachers towards teaching large class sizes as prevalent in some selected Eastern Ethiopian Higher Learning Institutions today due to the present social demand for education. The samples used for the study were 211 teachers randomly selected among both Private and Public Higher Learning Institutions in Eastern Ethiopia. The instrument used for this study was Questionnaire and unstructured observational checklist which were used for the collection of data and then analyzed using frequency count, percentage, mean score, standard deviation and One Way ANOVA statistical tools in the former one. The findings revealed that the teachers were not favorably contented to teach large class sizes. The majority were of the view that in such class sizes, it is difficult to engage in practical work; there was less concentration on the part of the students; teaching is teacher-centered; the level of students' participation is low and there are heavier demands on facilities and instructional materials. The study further revealed that teachers have the attitude that coping strategies such as peer tutoring and instructor - expressiveness and teaching behavior can be employed by them to assure quality in teaching and learning in these institutions. The study also indicated that there was no significant mean difference between male and female teachers' disposition; moreover, it was also found that there was statistically no significant mean difference between more experienced and less experienced teachers' dispositions. The implication of this study is that teaching large class sizes shows negative impact on the quality of learning by the students but can, however be reduced by concerted efforts to employ suitable teaching methods on the part of teachers.


Key words: Class sizes, Haramaya, Private and Public Higher Learning Institution

### 1.1 BACKGROUND AND CONTEXT OF THE STUDY

All over the world, countries have been responding to the challenges of globalization and the information age by expanding their Higher Learning Institution systems. In the developing world, countries like China and India have expanded their Higher Learning Institution rapidly so that now more than 2 million students are enrolled in Higher Learning Institutions in each country. Even countries with much smaller populations such as Egypt and Thailand have systems serving more than a million students in their Higher Learning Institutions (Wagaw, 2001).

Moreover, Higher Learning Institution is central to economic and political development, and vital to competitiveness in an increasingly globalizing knowledge society. In the case of Africa, higher education institution plays a critical capacity building and professional training role in support of all the Millennium Development Goals (MDGs). Recent research findings indicate that expanding higher education may promote faster technological catch up and improve a country's ability to maximize its economic output (Kebede, 2006).

Sub-Saharan Africa (SSA), with about 740 million people, some 200 public universities, a fast increasing number of Private Higher Learning Institutions and the lowest higher education gross enrollment ratio in the world (about 5 percent), is now paying greater attention to issues of quality at the tertiary level. Rapid growth in enrollments amidst declining budgets during the 1980s and 1990s, the proliferation of private provision of higher education and pressure from a rapidly transforming labor market have combined to raise new concerns about quality (World Bank, 2002).

Countries are becoming conscious of the need for effective quality assurance and quality improvement. Senior officials from various countries, including Ethiopia, Madagascar, South Africa, and Nigeria have expressed concern about the need to improve quality of Higher Learning Institutions, the need to reassure the public about the quality of private providers, and the importance of ensuring that Higher Learning Institution's offered in both
public and private institutions meet acceptable local and international standards (World Bank, 2006).
Several factors contributed to the decline in quality of Higher Learning Institution in Africa. These include a decline in per unit costs (from US\$6,800 in 1980 to US\$1,200 in 2002) amid rapidly rising enrollments; insufficient numbers of qualified academic staff in higher learning institutions as the result of brain drain, retirements and HIV/AIDS; low internal and external efficiency; and poor governance. These factors, along with the rapid emergence of private providers in response to the increasing social demand for higher education, have prompted institutions and governments to put in place various forms of quality assurance mechanisms in an attempt to reverse the decline in quality and to regulate the new providers. Though some attempts to document these developments have been made by various individuals, no comprehensive mapping and analysis of quality assurance systems in the region has yet been undertaken (UNESCO, 2004).

Ethiopia started introducing modern education in the 1940s. It has remained essential for the country to come out of poverty since then. And the challenge has been to create educated human capital and skills through developing an education system built and legitimized by the active participation of all the stakeholders who agree to resource and support education development. Several studies (Pankhurst, R. 1972, 1999; Teshome Wagaw, 1979, 1999, 2001; Tekeste Negash, 1990, 2006; UNESCO, 2004; World Bank, 2005; Damtew Teferra \& Altbach, 2004; Messay Kebede, 2006; Damtew Teferra, 2005, 2007; Forum for Social Studies, 2009) have shown that Ethiopia's educational expansion is plagued by the prevalence of poor quality across the education sectors from primary to higher learning institutions even though the country has been at the start of her own rapid growth in Higher Learning Institutions since the over thrown of the military government (Teshome, 2006).

Among the problems facing the Ethiopian Higher Learning Institutions system is large class sizes. This has become a reality that educators and policy makers must see as a challenge and must face squarely. The socialdemand for formal education in Ethiopia resulted into an upsurge increase in school enrolment with a dramatic increase in class size thereby resulting into high teacher-student ratio (World Bank, 1998).

In summarizing the problems associated with the large classes, Hayes (1997) listed that discomfort, control, individual attention, evaluation and learning effectiveness are the key problems of teaching large class sizes. Negash (2006) noted that teacher perceived that class work take a lot of time in teaching large class sizes. Other view of teachers are that exercises are not finished during the fifty minutes allocated for teaching making class work to be cumbersome to handle by one teachers. Moreover, there is stress and boredom and fatigue in marking and class control. Due to these problems, many good teachers have either resigned or are frustrated. The frustration leads to some teachers not attending classes regularly. Against this background, this study sought to examine the perception of teachers in teaching large class sizes in some selected Private and Public Higher Learning Institutions in Eastern Ethiopia.

### 1.2. Statement of the problem

The above scenario paved way for saddling teachers with more responsibility than what is required. Handling large class sizes with limited resources to facilitate effective teaching and learning was too difficult. Teaching and learning as well as classroom management becomes ineffective because teachers were predisposing to more stress in handling the students. Overpopulated classrooms are considered to be unconducive for both teachers and students when it comes to the issue of continuous assessment, marking and the ability to give individualized attention to students needing extra help (World Bank, 2005). This paper would, therefore, detail the teachers' perception on teaching large class sizes in some selected Private and Public Higher Learning Institutions and its implication for quality education.

### 1.3. Research questions

Specifically, the study addressed the following questions:

1. What is the class enrolment in the sampled Higher Learning Institutions?
2. What is the perception of teachers regarding teaching large class sizes in these institutions?
3. To what extent do large class sizes have an impact on quality of education in Higher Learning Institutions?
4. Is there any significant difference between Private and Public Higher Learning Institutions in dealing with large class sizes?

### 1.3.1 Research Hypotheses

So as to systematically examine and cross check the problems with the research questions mentioned above, the researcher has formulated the following research hypotheses.

1. $\mathbf{H}_{0}$ : There is no statistically significant mean difference between male and female teachers' perception in
teaching large class sizes.
2. $\mathbf{H}_{0}$ : There is no statistically significant mean difference between Private and Public Higher Learning Institutions in teaching large class sizes.
3. $\mathbf{H}_{0}$ : There is no statistically significant mean difference between the more experienced and less experienced teachers' perception in teaching large class sizes.
4. There is no statistically significant mean difference between colleges in teachers' perception in teaching large class sizes.

### 1.4 Specific objectives

The specific objectives of this study are intended to:

- Assess the large class sizes of the selected Private and Public Higher Learning Institutions Eastern Ethiopia.
- Identify the perceptions of teachers towards teaching large class sizes in the selected institutions.
- Identify the extent to which large class sizes have an impact on quality education in these institutions.
- Show whether there is any significant difference exits between the male and female teachers' perception in teaching large class sizes in the selected Higher Learning Institutions.
- Look at if there is any significant difference between Private and Public Higher Learning Institution in dealing with large class sizes in these selected higher institutions.


## 2. RESEARCH METHODOLOGY

### 2.1 Research design

Descriptive survey research design was employed in carrying out this study. Teachers' perception in teaching large class sizes and its impact on quality education in Higher Learning Institutions were surveyed and the data collected were subjected to both quantitative and qualitative analysis.

### 2.2 Sampling techniques and sampling size

The sample used for this study consisted of 211 teachers from the three sampled Higher Learning Institutions, namely Rift Valley University (Dire Dawa and Harar Branches) and Haramaya University, in Eastern Ethiopia. Then, stratified random sampling technique was employed because firstly, there were different subdivisions in the targeted population which are important to be considered. Secondly, there were also variations in population sizes of different strata in this case (qualifications, experiences, sex, ages, department, college, and universities) of the population that were not equal in size.

## 3. RESULTS AND DISCUSSIONS

The overall purpose of this research is to assess the perceptions of teachers in teaching large class sizes in the Eastern Ethiopian, in two Private and one Public Higher Learning Institutions. To realize this goal, the data were collected, organized and presented as follows.

Table 3.1: Teachers' Perceptions on Class Sizes Vs Experience

| Descriptive | ANOVA Summary | Af | MS | F | Sig. |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Class size | Percentage | N | Mean | SD | SV | MS | F | Sig |  |
| Small | 97.16 | 205 | 1.72 | 0.97 | Between Groups | 2 | 1.08 | 1.16 | 0.32 |
| Large | 0.95 | 2 |  | 1.00 | Within Groups | 208 | 0.93 |  |  |
| No preference | 1.89 | 4 | 2.25 | 0.96 | Total | $\mathbf{2 1 0}$ |  |  |  |
| Total | $\mathbf{1 0 0}$ | $\mathbf{2 1 1}$ | $\mathbf{1 . 7 2}$ | $\mathbf{0 . 9 7}$ |  |  |  |  |  |

* The mean difference is significant at the 0.05 level (2-tailed).

From the table 3.1 above, one can identify that (205, $97.16 \%$ ) of the teachers sampled did not support teaching large class sizes. Teachers in the sampled Higher Learning Institutions were of the opinion that the best approach to teach under this situation is to make the teaching teacher-centered with low students' participation. Moreover, the obtained F ratio at $\alpha=0.05, \mathrm{~F}(2,208)=1.16$ which is much less than the critical region $\mathrm{F}(2,208)=2.30$. Hence, there is no statistically significant mean difference in teachers' perceptions among those sampled Higher Learning Institutions in experiences, $\mathrm{F}(2,208)=1.08, \mathrm{p}>0.05$ two tailed. This indicates that experience of the teachers do not have resulted in any perceptual difference on large class sizes. In addition to the above evidences, the unstructured observational checklists indicated that almost all the sampled teachers were against the favour of teaching large class sizes.

Table 3.2: Teachers' Perceptions on Large Classes Vs Qualifications

| Descriptive | N | Mean | SD | SV | SV Summary | SS | df | MS | F | Sig. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Qualifications | 2 | 1 | 0 | Between Groups | 0.31 | 5 | 0.06 | 0.73 | 0.27 |  |
| Technical Assistant | 63 | 1.02 | 0 | Within Groups | 17.22 | 205 | 0.08 |  |  |  |
| Graduate Assistance | 35 | 1 | 0 | Total | 17.22 | 210 |  |  |  |  |
| Assistant Lecturer | 106 | 1.08 | 0.39 |  |  |  |  |  |  |  |
| Lecturer | 4 | 1 | 0 |  |  |  |  |  |  |  |
| Assistant Professor | 1 | 1 | . |  |  |  |  |  |  |  |
| Professor | 211 | 1.05 | 0.29 |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |

* The mean difference is significant at the 0.05 level (2-tailed).

The table 3.2 above indicates insight into one of the six qualifications with specific data on the teachers' perception in teaching large class sizes in the sampled Higher Learning Institutions. The obtained mean item scores for the six qualifications (TA, GA, AL, L, Asst.P and P) respectively are 1, 1.02, 1, 1.08, 1 and 1. This indicates that all the qualified professionals were against in teaching large class sizes in the sampled Higher Learning Institutions even though the qualified professionals were different in qualification. Moreover, the computed standard deviations showed us that there were no variations among these qualified professionals in their perceptions of teaching large class sizes in the sampled Higher Learning Institutions. Furthermore, the obtained F ratio at $\alpha=0.05, \mathrm{~F}(5,205)=0.73$ which is much less than the critical region $\mathrm{F}(2,208)=2.57$. Hence, there is no statistically significant mean difference among the qualifications in the perceptions of teachers in teaching large class sizes in the sampled institutions, $\mathrm{F}(5,205)=0.73$, $\mathrm{p}>0.05$, two tailed.
Table 3.3: Teachers Preference to Teach Class Sizes in both Private and Public Higher Learning Institutions

| Descriptive |  |  |  |  | ANOVA Summary |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Class sizes HLI | N | \% | Mean | SD | SV | SS | df | MS | F | Sig. |
| 20-25students | 52 | 24.64 | 1.02 | 0.14 | Between Groups | 2.53 | 3 | 0.84 | 4.05 | 0.00 |
| 26-35 Students | 63 | 29.86 | 1.06 | 1.27 | Within Groups | 43.20 | 207 | 0.21 |  |  |
| 36-45 students | 63 | 29.86 | 1.06 | 0.25 | Total | 45.73 | 210 |  |  |  |
| 46-55 Students | 33 | 15.64 | 1.24 | 0.61 |  |  |  |  |  |  |
| Total | 211 | 100 |  |  |  |  |  |  |  |  |

The mean difference is significant at the 0.05 level (2-tailed).
Table3.3. above indicates that the majority $(126,59.72 \%)$ of the sampled teachers preferred $26-45$ number of students per class whereas ( $52,24.64 \%$ ) of the sampled teachers preferred 20-25 number of students per class and the rest $(33,15.64 \%)$ of the sampled teachers preferred $45-55$ number of students per class. Even though there is no such agreement in the number of students per class, no teachers from the two selected Private and Public Higher Learning Institutions would prefer more than 55 students per class. The obtained mean scores for the four preferred class sizes ( $20-25,26-35,36-45$, and $46-55$ ) respectively were $1.02,1.06,1.06$ and 1.24. This indicates that at least a teacher selects one preferred class size from the four preferred class sizes in both Higher Learning Institutions. Moreover, the computed standard deviations showed us that there were little variations among the teachers in their preference to teaching large class sizes in the sampled Higher Learning Institutions.

Furthermore, the obtained F ratio at $\alpha=0.05, \mathrm{~F}(3,207)=4.05$ which exceeds the critical region at $\mathrm{F}(3,207)=$ 2.60. Hence, there is statistically significant mean difference among the sampled teachers in the preference to teaching those class sizes in the sampled Higher Learning Institutions, F $(3,207)=4.05$, p $<0.05$, two tailed. Additionally, the unstructured observational checklists evidenced that there is variations in preferring class sizes among teachers in both Higher Learning Institutions.
Table3. 4: Teaching Large Class ( 100 students or more)

| Descriptive |  | ANOVA Summary |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Class sizes | $\mathbf{N}$ | $\boldsymbol{\%}$ | $\mathbf{M e a n}$ | SD | SV | SS | df | MS | F | Sig. |
| yes | 82 | 38.86 | 1.00 | 0 | Between Groups | 2.71 | 1 | 2.71 | 13.17 | 0.00 |
| no | 129 | 61.14 | 1.23 | 0.58 | Within Groups | 43.02 | 209 | 0.21 |  |  |
| Total | $\mathbf{2 1 1}$ | $\mathbf{1 0 0}$ | $\mathbf{1 . 1 4}$ | $\mathbf{0 . 4 7}$ | Total | $\mathbf{4 5 . 7 3}$ | $\mathbf{2 1 0}$ |  |  |  |

* The mean difference is significant at the 0.05 level (2-tailed).

As the table 3.4 above reveals, the majority $(129,61.14 \%)$ of the sampled teachers from the two Higher Learning

Institutions were responded that they did not teach on classes that have more than 100 students whereas the rest $(82,38.86 \%)$ of the teachers were responded that they have been teaching in classes that have more than 100 students. Moreover, the computed standard deviation show us that there were variations in class sizes which are below and above 100 students per class among the sampled teachers who have been teaching in the selected Higher Learning Institutions.

In addition to this evidence, the computed F ratio at $\alpha=0.05, \mathrm{~F}(1,209)=13.17$ which exceeds the critical region at $\mathrm{F}(1,209)=3.84$. Hence, there is statistically significant mean difference among the sampled teachers in teaching below or above 100 students per class in the sampled institutions, $\mathrm{F}(1,209)=13.17, \mathrm{p}<0.05$, two tailed. Additionally, the unstructured observational checklists evidenced that the teachers under the study perceived that large class size matters in teaching-learning processes in both Higher Learning Institutions. They have been reasoning out that large class sizes made the teaching teacher- centered or teacher- dominated with low student participation; practical work becomes difficult to arrange, and quiet students are often neglected.
Table 3.5: Teaching Methods Preferred by Teachers in Teaching Large Class Sizes

| No | Descriptive |  |  |  |  | ANOVA Summary |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Methods | N | \% | Mean | SD | SV | SS | df | MS | F | Sig. |
| A | Pure Lecture | 115 | 54.50 | 1.19 | 0.54 | Between Groups | 0.90 | 5 | 0.18 | 0.82 | 0.54 |
| B | Lecture \& Discussion | 67 | 31.75 | 1.12 | 0.41 | Within Groups | 44.84 | 205 | 0.22 |  |  |
| C | Jigsaw Methods | 10 | 4.74 | 1.00 | 0.00 | Total | 45.73 | 210 |  |  |  |
|  | Case study Methods | 6 | 2.84 | 1.00 | 0.00 |  |  |  |  |  |  |
| D | Team Project Methods | 12 | 5.69 | 1.00 | 0.00 |  |  |  |  |  |  |
| E | ALL( a,b,c, d \& e) | 1 | 0.47 | 1.00 | . |  |  |  |  |  |  |
|  | Total | 211 | 100 | 1.14 | 0.47 |  |  |  |  |  |  |

*The mean difference is significant at the $\mathbf{0 . 0 5}$ level (2-tailed).
As one can understand from the table 3.5 indicated above, the majority $(115,54.50 \%)$ of the sampled teachers were preferred to lecture methods and the rest $(96,45.5 \%)$ of the sampled teachers were preferred the rest methods of teaching (lectures and discussion, $31.75 \%$ ), (jigsaw methods, $4.74 \%$ ), (case study, $2.84 \%$ ), (team project, $5.69 \%$ ) and all together, $0.47 \%$ ). It seems that lecture method was appropriate in teaching large class sizes even though it would make the teaching teacher-centered with low students' participation; practical work becomes difficult to arrange; quiet students are often neglected; securing students' total attention during lessons is almost impossible. In addition to this evidence, the computed F ratio at $\alpha=0.05, \mathrm{~F}(5,205)=0.82$ which is less than the critical region at $\mathrm{F}(5,205)=2.21$. Hence, there is no statistically significant mean difference among the sampled teachers in teaching-methods in large class sizes in the sampled institutions, F $(5,205)=$ 0.82 , p $>0.05$, two tailed. Additionally, the unstructured observational checklists evidenced that most of the teachers under the study have been applying lecture methods in teaching large class size in both Higher Learning Institutions.

Table 3.6 Factors Affecting Quality Education as the result of Large Class Sizes

| Descriptive Statistics |  |  |  |  | ANOVA Summary |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No | How much do you agree or disagree with these statements? | N | \% | Mean | SD | df | F | Sig. |
| Physical qualities |  |  |  |  |  |  |  |  |
| 1 | The library has a wide range of books and periodicals in my course area of teaching. | 211 | 46.80 | 2.34 | 1.35 | $(10,200)$ | 2.52 | 0.01 |
| 2 | The classrooms have up-to-date teaching support equipment. | 211 | 34.80 | 1.74 | 1.07 | $(10,200)$ | 2.32 | 0.01 |
| 3 | Laboratory rooms are provided with adequate lab equipment. | 211 | 39.80 | 1.98 | 1.12 | $(10,200)$ | 1.17 | 0.32 |
| 4 | Adequate printer facilities are available. | 211 | 38.40 | 1.92 | 1.23 | $(10,200)$ | 3.04 | 0.00 |
| 5 | The university has sufficient residential accommodation for instructors. | 211 | 31.60 | 1.58 | 1.09 | $(10,200)$ | 3.91 | 0.00 |
| Interactive qualities |  |  |  |  |  |  |  |  |
| 6 | My course is intellectually challenging | 211 | 55.40 | 2.77 | 1.40 | $(10,200)$ | 1.88 | 0.05 |
| 7 | Staff react politely to students' queries | 211 | 51.80 | 2.59 | 1.47 | $(10,200)$ | 6.80 | 0.00 |
| 8 | The administrative staff are helpful | 211 | 62.20 | 3.11 | 1.49 | $(10,200)$ | 2.93 | 0.00 |
| 9 | I can be easily contacted individually to my students in large classes. | 211 | 62.8 | 3.14 | 1.55 | $(10,200)$ | 4.53 | 0.00 |
| 10 | I have adequate time for consultation to my students. | 211 | 59.60 | 2.98 | 1.46 | $(10,200)$ | 3.79 | 0.00 |
| 11 | Feedback from my coursework is adequate | 211 | 44.00 | 2.20 | 1.26 | $(10,200)$ | 4.82 | 0.00 |

## Corporative qualities

| 12 | The university maintains links with <br> international education networks | 211 | 45.60 | 2.28 | 1.35 | $(10,200)$ | 3.15 | 0.00 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 13 | The university is well recognized for the <br> academic programmes. | 211 | 41.8 | 2.09 | 1.13 | $(10,200)$ | 1.88 | 0.05 |
| 14 | The university offers a high quality of <br> teaching performance. | 211 | 43.00 | 2.15 | 1.14 | $(10,200)$ | 1.70 | 0.08 |
| 15 | The ranking of this university/college is high. | 211 | 42.20 | 2.11 | 1.20 | $(10,200)$ | 2.65 | 0.00 |
| 16 | The university maintains excellent links with <br> local industry. | 211 | 52.80 | 2.64 | 1.40 | $(10,200)$ | 1.83 | 0.06 |
| 17 | The university has contacts with <br> international employers. | 211 | 55.4 | 2.77 | 1.40 | $(10,200)$ | 1.91 | 0.05 |

## * The mean difference is significant at the 0.05 level (2-tailed).

From the table 3.6 given above, we can understand that ( $97,46.80 \%$ ), ( $73,34.80 \%$ ), ( $84,39.80 \%$ ), ( $81,38.40 \%$ ), and ( $67,31.60 \%$ ) of the sampled respondents were slightly disagreed on the physical qualities that have been provided by the sampled institutions. This means that the physical qualities like- library (a wide range of book and periodicals in their course area of teaching), up-to-date classroom teaching support equipment, laboratory (adequate lab equipment), availability of adequate printer facilities and sufficient residential accommodation for instructors were not sufficient enough. Even though the computed standard deviations (1.35, 1.07, 1.12, 1.23, and 1.09) showed that there was little bit variability among the respondents on the physical qualities, in average almost they would be slightly disagreed on sufficient availabilities of the physical qualities.

Besides, the computed F ratio at $\alpha=0.05, \mathrm{~F}(10,200)=2.52, \mathrm{~F}(10,200)=2.32, \mathrm{~F}(10,200)=3.04, \mathrm{~F}(10,200)$ $=3.91$ exceed the critical region at $\mathrm{F}(10,200)=1.83$. Therefore, one can conclude that there are statistically significant mean differences among the respondents in the physical qualities like- library facilities, up-to-date classroom teaching support equipment, availability of adequate printer facilities and sufficient residential accommodation can directly or indirectly affect quality education as a result of large class sizes, $\mathrm{F}(10,200)=$ $2.52, \mathrm{~F}(10,200)=2.32, \mathrm{~F}(10,200)=3.04, \mathrm{~F}(10,200)=3.91, \mathrm{p}<0.05$, two tailed respectively. However, the computed F ratio of the availability of lab-equipment was found to be statistically insignificant, $\mathrm{F}(10,200)=$
$1.17, \mathrm{p}>0.05$, two tailed. This means that the respondents did not have much difference on the availability of lab equipment.

As it can be seen from the table 3.6 given above, (117, 55.40\%), ( $109,51.80 \%$ ), ( $131,62.20 \%$ ), ( $133,62.8 \%$ ), $(126,59.60 \%)$ and $(93,44.00 \%)$ of the respondents were respectively neither agreed nor disagreed on items 6 and 7 , slightly agreed on items 8 and 9 , neither agreed nor disagreed on item 10 and slightly disagreed on item 11. Moreover, the computed standard deviations (1.40, 1.47, 1.49, 1.55, 1.46, and1.26) were respectively showed that there was very high variability among respondents in each item. Furthermore, the computed F ratio at $\alpha=$ $0.05, F(10,200)=4.82, F(10,200)=6.80, F(10,200)=2.93, F(10,200)=4.53, F(10,200)=3.79$, and $F(10$, $200)=1.88$ exceed the critical region at $\mathrm{F}(10,200)=1.83$. Therefore, one can conclude that there are statistically significant mean differences among the respondents on the interactive qualities like- intellectually challenging courses, staff politeness to students' queries, helpful staff administrative, easily contacting individual student in large class sizes, adequate time for consultation to students, and adequate feedback from coursework can directly or indirectly affect quality education as a result of large class sizes, $\mathrm{F}(10,200)=4.82, \mathrm{~F}(10,200)=$ $6.80, \mathrm{~F}(10,200)=2.93, \mathrm{~F}(10,200)=4.53, \mathrm{~F}(10,200)=3.79$, and $\mathrm{F}(10,200)=1.88, \mathrm{p}<0.05$, two tailed respectively.

As it was also indicated in the table 3.6 above, $(96,45.60 \%),(88,41.80 \%),(91,43.00 \%),(89,42.20 \%),(112$, $52.80 \%$ ) and ( $116,55.40 \%$ ) of the sampled respondents were respectively slightly disagreed on items $12,13,14$ and 15 , neither agreed nor disagreed on items 16 and 17 . Besides, the computed standard deviations $(1.35,1.13$, $1.14,1.20,1.40$ and 1.40 ) indicated above that there was relatively high variability among the respondents on these items respectively. Furthermore, the computed F ratio at $\alpha=0.05, \mathrm{~F}(10,200)=3.15, \mathrm{~F}(10,200)=1.88, \mathrm{~F}$ $(10,200)=2.65, F(10,200)=1.83$ and $F(10,200)=1.91$ exceed the critical region at $F(10,200)=1.83$. Therefore, one can conclude that there are statistically significant mean differences among the respondents on the corporative qualities like- links of these institutions with international education networks, well recognized institutions for the academic programmes, high ranking of this university/college, and contacts the institutions with international employers can directly or indirectly affect quality education as a result of large class sizes, F $(10,200)=3.15, \mathrm{~F}(10,200)=1.88, \mathrm{~F}(10,200)=2.65, \mathrm{~F}(10,200)=1.83$ and $\mathrm{F}(10,200)=1.91, \mathrm{p}<0.05$, two tailed respectively. However, the computed F ratio of items 14 and 16 at $\alpha=0.05$ respectively were F ( 10 , $200)=1.70$ and $F(10,200)=1.83$ which is less than the critical region at $F(10,200)=1.83$. This indicates that there are no statistically significant mean differences among the respondents on offering a high quality teaching performance and excellent links with local industry of these Higher Learning Institutions, F $(10,200)=1.70$, $\mathrm{p}>0.05$ and $\mathrm{F}(10,200)=1.83, \mathrm{p}>0.05$, two tailed.

## 4. CONCLUSIONS

Based on the result and discussion above, the researcher drew the following conclusions:

- From the sampled Higher Learning Institution's lecturers (211), the majority (129, 61.14\%) of them were males, ( $191,90.52 \%$ ) of them were from Public Higher Learning Institution, and the majority ( $100,47.39 \%$ ) of them were laid between the ages of 26-30 years. This concludes that most of the lecturers were relatively younger adults.
- Furthermore, the majority of the lecturers $(115,54.50 \%)$ had an experience of teaching between 0 to 5 years; $(20,9.48 \%)$ of them were graduate assistant females whereas $(43,20.38 \%)$ of the graduate assistant were males who have been working at the same levels with their females counterparts. From this one can conclude that the number of females who are ranked as a graduate assistant were much less in number than their males counterparts.
- Besides, out of $(35,16.59 \%)$ assistant lecturers ( $20,9.84 \%$ ) were females whereas the rest $(15,7.11 \%)$ were males. From these perspectives one can conclude that the numbers of female assistant lecturers were found to be higher than the number of their males' assistant lecturers.
- Moreover, out of the collected data (106, 50.24\%) of the lecturers, $(40,18.96 \%)$ were female whereas the rest $(66,31.28 \%)$ of them were their males' counterparts. From this again one can conclude that males were in better position in qualification. In the cases of assistant professors, associative professors and professorship, female teachers were almost found to be negligible. This also showed as the policy makers and governors should do much so as to balance the gender issues in education.
- It was also found that ( $205,97.16 \%$ ) of the sampled teachers did not support teaching large class sizes. Hence, there is no statistically significant mean differences in teachers' perceptions among those sampled higher learning institutions in age, sex, experience and qualification. This indicates that experiences, ages, sexes and qualifications of the lecturers did not have any perceptual difference in teaching large class sizes.
- The quantitative analysis was concluded that the majority $(129,61.14 \%)$ of the sampled lecturers were responded that they did not want to teach class sizes that have had more than 100 students whereas the rest (82, $38.86 \%$ ) of the them were responded that they had preferred to teach in large class sizes that have more than 100 students. Hence, there is statistically significant mean difference among these sampled lecturers in teaching below or above 100 students per class in the sampled Higher Learning Institutions.
- From the findings of this study, one can conclude that large class sizes are not a better preference for teachers in the sampled institutions. The findings also cast some doubts on the skills of the teachers in dealing with the problem especially in Institute of Technology, College of Business and Economics, College of Health Science, and College of Computing and Informatics. Indulging in the use of negative reinforcement like stressing students beyond their limit excessive exercise is not educationally expedient. These are direct result of poor quality training of teachers.
- As to factors affecting quality education as the result of large class sizes were concerned, it could be concluded that the majority of the sampled population were either completely disagreed or slightly disagreed on physical qualities as indicated in items (1, 2, 3, 4, and 5). However, the one way ANOVA was identified that the availability of lab-equipment was found to be statistically not significant. This means that the respondents did not have much difference on the availability of lab equipment. Nevertheless, the one way ANOVA was concluded that there were statistically significant mean differences among the respondents in the physical qualities likelibrary facilities, up-to-date classroom teaching support equipment, availability of adequate printer facilities and sufficient residential accommodation can directly or indirectly affect quality education as a result of large class sizes.
- As far as the second factors- interactive quality was concerned, it was pinpointed that some of the respondents were neither agreed nor disagreed on items ( 6,7 and 10 ) whereas some of them were slightly agreed on items (8 and 9) and some of them were still slightly disagreed on item 11 . However, the one way ANOVA was indicated that there were statistically significant mean differences among these respondents on these interactive qualities like- intellectually challenging courses, staff politeness to students' queries, helpful staff administrative, easily contacting individual student in large class sizes, adequate time for consultation to students, and adequate feedback from coursework can directly or indirectly affect quality education as a result of large class sizes.
- As far as the third factors- corporative quality was concerned, it was found that some of the sampled respondents were slightly disagreed on items $12,13,14$ and 15 , neither agreed nor disagreed on items 16 and 17 . However, the one way ANOVA pinpointed that there were statistically significant mean differences among these respondents on these corporative qualities like- links of these higher learning institutions with international education networks, well recognized Higher Learning Institutions for the academic programmes, high ranking of this university/college, and contacts the Higher Learning Institutions with international employers can directly or indirectly affect quality education as a result of large class sizes; on the other hand, it was found that there were no statistically significant mean differences among the respondents on offering a high quality of teaching performance and excellent links with local industry of these institutions.


## 5. IMPLICATIONS OF THE STUDY ON QUALITY OF EDUCATION

- Educational planners in Ethiopia should be mindful of carrying the capacity in each Higher Learning Institution just as what is obtainable in country's tertiary institutions when admitting students for education programme because there is general demand for information by parents, universities, teachers, department heads, college deans and national officials in ministries of education who want to know more about student achievements, and the factors that affect it at the level of the education system (that is, student, class, department, college, universities and nation) for which they are responsible.
- One of the problems associated with attending to these enquiries is that it is not always the same factors that affect student achievements for all decision-making levels, for all subjects, for all age groups, for all higher learning institution of a country, or for all countries. Hence the need for a complete reconceptualization of what information should be collected in order to assist with planning the quality of education is very crucial.
- This would greatly assist in effective implementation of teaching and learning in Ethiopian Higher Learning Institutions. Teaching large class sizes by teachers lead to drastic fall in quality of education which has an overall effect on every facility, materials, equipment, infrastructure, human resources, library services and other students' personnel services which likely lead to a situation of quality impairment.
- The need for regular monitoring and supervision to assist in collection and collation of reliable data and to develop a meaningful two-way dialogue between information providers (educational planners) and information users (decision-makers operating at all levels of an education system) as regards situation analysis in Ethiopian Higher Learning Institutions would further assist to inform certain decisions by the policy makers so as to allocate teachers to these institutions. This would again pave way for successful implementation of teaching
and learning in Higher Learning Institutions, which further enhance educational productivity.
- In addition, Educational planners need to come up with an action plan on the best way to respond to identify needs within the tertiary education in general and the sampled Higher Learning Eastern Ethiopia in particular.


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