Haramaya University

# The Causes of Re-exam and Its Role in Improving Academic Achievement of Low Scoring Students at Haramaya University

**Abstract:** Re-exam is a form of supplementary assessment designed to provide a second opportunity for students who scored final course marks between 30 and 40. This study employed a survey design that involves both quantitative and qualitative approaches. Questionnaires, interviews and document analyses for collecting data from both primary and secondary sources were designed and executed. 315 students and 15 instructors were incorporated as a sample using stratified random and purposive sampling techniques respectively. The available sampling techniques were utilized to add 10 cluster registrar heads and 18 registrar data managers as a sample. The findings of the study showed that students' poor academic background, health problems at the time of the exam and deliberately scoring an FX grade were the main causes that exposed students to scoring FX grades. Additionally, it was found that the majority of students scored FX grades in cross-departmental courses rather than home-based courses. The findings further indicated that re-exams play a great role in helping low achieving students to improve their academic achievement, as 43% of the students who scored an FX grade in their first assessment scored C or above after a re-exam. The relationship between study year level and the number of students who scored FX grades (r = -0.92, p < 0.05) is negative and significant. The computed t-test result (t (971) = 1.0, p> 0.05) indicated that males and females do not differ significantly in their achievements in re-exams.

**Keywords:** academic achievement, FX grade, re-exam

#### 1. Introduction

Assessment is a systematic practice of gathering information on the progress of students' learning by using various tools like observations, formal tests, homework, laboratory work, portfolios, field reports, exams, oral presentations and the like in order to make judgments about the extent of students' achievement (Brown & Peter, 2004; Arega et al., 2014; Haramaya University, 2015; Griffith University, 2017).

According to Haramaya University (2013) and Griffith University (2017), a grade is the result that students received on a course through a process of aggregating the marks achieved in individual assessment tasks, signifying the overall performance of the student on that specific course.

Nowadays, universities are using different grading nomenclature in order to record their students' achievements. For instance, Curtin University, Griffith University, Queensland University of Technology (QUT) and the University of Iceland use numeric grading systems. However, there is variation among these institutions in the point scales used. For example, Griffith University, QUT and Curtin University use a 7-point scale to certify their students (QUT, 2013; Curtin University, 2015; Griffith University, 2017). In a slightly different manner, the University of Iceland has been using an 11-point scale to record students' results (University of Iceland, 2008). But, in the grading systems of all these institutions, the highest numbers indicate honors or distinctions while the lowest numbers indicate failures. Appendix 1 summarizes the scales of each university in detail.

On the other hand, universities like Aalto, McGill, Pittsburgh, North Carolina, Louisiana State, Auckland, Alberta, and Victoria use letter grading systems to record their students' achievements. However, they are still different from the perspective of grading scales. For example, McGill University uses a 9-point scale while the University of Victoria, universities in Pakistan, and the University of Alberta use a more extended grading system which has an 11-point scale. Moreover, a 12-point scale is used by National Taiwan University, Auckland University and Aalto University. Furthermore, Louisiana State University and Trinity Western University (TWU)

use the most extensive grading system, which has a 13-point scale. Table 1 below summarizes the letter grading systems of these universities.

Table 1. Summary of letter grading systems and their numeric values in different universities

| Aalto<br>University |     | Trin           | ana Sta<br>ity Wes<br>niversiti | tern | Taiv          | onal<br>wan<br>ersity |     | istan<br>rsities |     | :Gill<br>ersity |     | Victoria<br>Iniversi |   |          | Alberta<br>Iniversi |     |              |
|---------------------|-----|----------------|---------------------------------|------|---------------|-----------------------|-----|------------------|-----|-----------------|-----|----------------------|---|----------|---------------------|-----|--------------|
| Α                   | 4   | Excellent      | <b>A</b> +                      | 4.3  | peu           | A+                    | 4.3 | Α                | 4   | Α               | 4   | A+                   | 9 | _        | <b>A</b> +          | 4   | l t          |
| A-                  | 3.7 | Exce           | Α                               | 4    | Distinguished | Α                     | 4   | A-               | 3.7 | Α-              | 3.7 | Α                    | 8 | Superior | Α                   | 4   | Excellent    |
| В+                  | 3.3 |                | A-                              | 3.7  | Dist          | A-                    | 3.7 | B+               | 3.3 | В+              | 3.3 | A-                   | 7 | S        | A-                  | 3.7 |              |
| В                   | 3   | 9005           | В+                              | 3.3  |               | В+                    | 3.3 | В                | 3   | В               | 3   | B+                   | 6 |          | B+                  | 3.3 | pc           |
| B-                  | 2.7 |                | В                               | 3    | 600d          | В                     | 3   | B-               | 2.7 | B-              | 2.7 | В                    | 5 | 9000     | В                   | 3   | Good         |
| C+                  | 2.3 | L)             | B-                              | 2.7  |               | B-                    | 2.7 | C+               | 3.3 | C+              | 2.3 | B-                   | 4 |          | B-                  | 2.7 | ıry          |
| С                   | 2   | Satisfactory   | C+                              | 2.3  |               | C+                    | 2.3 | С                | 2   | С               | 2   | C+                   | 3 | uate     | C+                  | 2.3 | Satisfactory |
| C-                  | 1.7 | Sat            | С                               | 2    | Acceptable    | С                     | 2   | C-               | 1.7 | D               | 1   | С                    | 2 | Adequate | С                   | 2   | Sat          |
| D+                  | 1.3 | ry             | C-                              | 1.7  | Accep         | C-                    | 1.7 | D+               | 1.3 | F               | 0   | D                    | 1 | Minimum  | C-                  | 1.7 |              |
| D                   | 1   | Unsatisfactory | D+                              | 1.3  | _             | D                     | 1   | D                | 1   |                 | 1   | F                    | 0 | Failure  | D+                  | 1.3 | Failure      |
| D-                  | 0.7 | n              | D                               | 1    | Minimal       | E                     | 0   | F                | 0   |                 |     | E                    | 0 | Re-exam  | D                   | 1   |              |
| F                   | 0.0 | Fail           | D-                              | 0.7  |               | Χ                     | 0   |                  |     |                 |     |                      |   |          | F                   |     |              |
|                     |     |                | F                               | 0.0  | Failure       |                       |     |                  |     |                 |     |                      |   |          |                     |     |              |

Like the University of Alberta and National Taiwan University in Table 1 above, Ethiopian universities have started to use a 12-point scale letter grading system since the curriculum of higher institutions was harmonized at a national level (MoE, 2012). Nevertheless, the Ethiopian grading system is highly similar to that of National Taiwan University except in two ways. Firstly, the E and X grades of National Taiwan University are replaced by F and FX grades in Ethiopian universities. Secondly, although National Taiwan University and Ethiopian universities use very

similar letters for grading, the numbers that represent the actual letter grade are slightly different. For instance: A+, B+ and C+ stand for 4.3, 3.3 and 2.3 at National Taiwan University. But the same grades have the respective values of 4, 3.5 and 2.5 in Ethiopian universities. Likewise, A-, B- and C- represent 3.7, 2.7 and 1.7 at National Taiwan University while they are 3.75, 2.75 and 1.75 in Ethiopian universities.

Moreover, FX is one of the grades offered to students if their final course result falls between 30 and 40. Appendix 2 has more details about the grading scales of Ethiopian higher education institutions' undergraduate programs. According to MoE (2012) and Haramaya University (2013), any students who scored an FX grade in any course is eligible to take a re-exam after attending 16 hours of tutorials within the first two weeks of a new semester. In a slightly similar way, a student who received a final course result between 45% and 49% inclusive can be eligible for a re-exam in universities such as Victoria, Notre Dame and Australian National University (University of Notre Dame, 2006; Victoria University, 2015; Australian National University, 2016).

The rule of offering a re-exam at Queensland University of Technology (QUT) is slightly different from the above universities. At QUT a student is eligible to apply for a re-exam when she/he scores a mark between 40-49% inclusive. Meanwhile, any student who scored marks either near to the pass mark or the failure mark is allowed to take a supplementary assessment at McGill University (McGill University, 2011).

Though the implementation of a re-exam seems common in many higher educational institutions, the existing literature on the area of reexams is highly scarce. The literature that has a very slight relation to the present study has been conducted on the effectiveness of remedial education in general, and the provision of tutorial in particular, and has indicated that both tutorial and remedial education, like after school study and summer school, increased the academic achievement of students. For instance, Grave (2010) found out that devoting time to attending tutorials is positively associated with the grades of females and high ability students in both social and natural sciences but is negatively correlated with the grades of students in natural sciences if the ability of the student

is below average. Another study done by Fouche (2007) showed that attending tutorials on at least ten occasions, in addition to regular lectures, has little effect on students' academic literacy marks, but it does seem to have an influence on students' writing ability. Similarly, Jacob and Lefgren (2002), Lavy and Schlosser (2005), and Battistin et al. (2010) found out that both remedial exams and remedial education increased the academic achievement of students.

Collectively, these studies evidenced the effectiveness of remedial education, but also showed firstly that they are unable to address the causes that expose students to remedial education except for their poor academic achievement in the mainstream curriculum, and secondly, these pieces of research are limited to primary and secondary levels in scope and are not powerful enough to tell us about the situation in tertiary education.

Furthermore, the practice of re-exam has been resulting in additional burdens on instructors as well as registrars, data managers and heads. It is also becoming an administrative concern for department heads. Hence, this study was conducted to deal with the following research questions and to test hypotheses:

- 1. What are the major causes that expose students to an FX grade?
- 2. In which courses do students often score FX grades (home-based courses vs. cross-departmental courses)?
- 3. What is the implication of a re-exam on improving the academic achievement of students?

# **Hypotheses**

- H<sub>O</sub> = There is no significant association between students' study year level and an FX grade.
- H<sub>1</sub> = There is a significant association between students' study year level and an FX grade.
- H<sub>O</sub> = There is no statistically significant mean difference between male and female students in their achievements in re-exams.
- H<sub>1</sub> = There is a statistically significant mean difference between male and female students in their achievements in re-exams.

#### 2. Research methods

# 2.1. Description of the study area

The study area, Haramaya University, is located in the eastern part of Oromia Regional State, Ethiopia. It is about 510 km from the capital city of the country, Addis Ababa. Formerly, it was named Alemaya College of Agriculture and was founded in 1954. On May 27, 1985 it was upgraded to university status, and due to the opening of the Faculty of Forestry in 1987 it was renamed Alemaya University of Agriculture. In 1995/96 the university launched the Faculty of Education and the Faculty of Health Sciences, further diversifying the existing programs and enabling the institution to become a fully-fledged university under its new name of Alemaya University. Moreover, the Faculty of Law and the Faculty of Business and Economics were launched in 2002. In 2003 and 2004 respectively, the Faculty of Veterinary Medicine and the Faculty of Technology were opened. Later, the institution was renamed Haramaya University in February 2006. Currently, the former faculties are organized into colleges; the university has nine colleges, one institute and one academy with a total of 289 programs of which 108 are undergraduate, 159 are postgraduate and 22 are PhD level. Hence, this study included students from all regular undergraduate programs of the 2016/17 academic year (second semester).

### 2.2. Research design

The main purpose of this study was to examine the role of the re-exam in improving the academic achievement of low scoring students at Haramaya University. Hence, this study employed a survey design that involves both quantitative and qualitative approaches.

#### 2.3. Sources of data

Both primary and secondary sources of data were used in order to collect the required information. The primary data were collected from students, registrar office data managers, registrar heads and course instructors. Secondary data sources such as Haramaya University senate legislation (Haramaya University, 2013), Haramaya University student assessment guidelines

(Haramaya University, 2015), modularization guidelines (MoE, 2012), and department council minutes were consulted. Additionally, research articles and reports produced by the Vice President for Academic Affairs were utilized.

# 2.4. Sample size and sampling sechnique

The total number of students who scored FX grades in the second semester of 2009 (2016/17) was 1746. To determine an appropriate sample size, the following formula (after Krejie and Morgan 1970) was utilized:

$$S = \frac{\chi^2 NP(1-P)}{d^2(N-1) + \chi^2 P(1-P)}$$
  $\chi^2 = 3.841$ 

where **S** is the sample size,  $\chi^2$  is desired confidence, **N** is population size, **P** is population proportion (assumed to be .50), **d** is degree of accuracy (0.05).

Accordingly, the calculated size of the sample was 315. Therefore, the researcher selected 315 students as a sample by using a stratified random sampling technique. 15 instructors that offered different courses in which a higher number of students scored FX grades were also included as a sample using a purposive sampling technique. Moreover, 10 registrar heads and 18 registrar data managers were selected by using the available sampling technique. The summary of sample sizes and sampling techniques is indicated in Table 2 below.

Table 2: Summary of sample sizes and sampling techniques

| S.N. | Respondents             | Total no. | Sample size | Percent sampled | Sampling technique |
|------|-------------------------|-----------|-------------|-----------------|--------------------|
| 1    | Students                | 1746      | 315         | 18              | Stratified random  |
| 2    | Instructors             | 48        | 15          | 31.25           | Purposive          |
| 3    | Registrar heads         | 10        | 10          | 100             | Available          |
| 4    | Registrar data managers | 18        | 18          | 100             | Available          |

#### 2.5. Tools of data collection

Questionnaires, interviews, and document analyses, described below, were the main data collecting tools used in this study.

The questionnaire, which had eight items that emphasized the causes of re-exams, was primarily adopted from existing studies (Yalew, 2003; Daniel, 2004; Belay, 2007; Myers and Grosvenor, 2011) and a pilot test was conducted to ensure its validity. A semi-structured interview was undertaken with key informants in order to supplement the data collected through the questionnaires and document reviews. It was prepared in a way that provoked participants to elicit responses regarding the role of re-exams in improving their achievement and the main causes that exposed students to FX grades.

Document analysis was the third data collecting instrument in this study. Hence, documents like summary papers prepared by the cluster registrar office of each college, which comprised the list of students who scored FX grades in the second semester of the 2009 E.C. academic year, and grades submitted by all instructors after the completion of the reexams were reviewed. In doing this, a document reviewing data sheet was prepared in a way that shows the number of students who scored FX in each department across all colleges, and whether the re-exam helped the students to improve their academic achievement or not. Additionally, it emphasized the type of course (home-based course vs. cross-department course) in which students were often exposed to re-exams. In the data collecting sheet, variables like department, study year level, sex, ID number, academic year, semester, CGPA and grade changes were included.

### 2.6. Data analysis

Descriptive statistics, particularly percentiles, were used to analyze the data collected through questionnaires. Correlation was used to witness if a significant relationship exists between the year level and the number of students who scored an FX grade. A t-test was also computed to see whether males and females differed significantly in their achievements in re-exams. Data collected through interviews were transcribed accordingly in a way that contained all the detailed information given by participants. Afterwards, the data reduction took place by using codes that signified the themes drawn from the interviews and document analysis.

# 2.7. Ethical issues and procedure of data collection

Before proceeding to the actual data collection, crucial ethical principles were followed to guarantee the participants of the study were treated with respect and consideration. First, a letter that requested the support of participants was sought from the Department of Adult Education and Community Development. Afterwards, deans of all colleges were contacted to request permission and direct the researcher to participants for the study such as students, registrar heads and registrar data managers. After that, participants were informed about the nature of the research and maximum effort was also made to ensure the anonymity and confidentiality of participants, such as removing names that might disclose the identity of the individual.

#### 3. Results and discussion

# 1. Major causes that expose students to FX grades

**Table 3: Reported reasons for scoring FX grades** 

| It No. | Reported Reason   | Frequency | Percent |
|--------|---|-----------|---------|
| 1      | The student purposely or knowingly scored FX  | 40        | 12.7    |
| 2      | Poor academic background of the student   | 128       | 40.6    |
| 3      | Health problem at the time of the exam (mid, test or final) and unsatisfactory health services for the student to recover | 68        | 21.6    |
| 4      | Invigilator signed on the student's exam sheet that they were cheating  | 30        | 9.5     |
| 5      | Poor cafeteria services   | 9         | 2.9     |
| 6      | Being placed in a department that the student was not interested in   | 11        | 3.5     |
| 7      | Inappropriate utilization of the allocated time and traditional teaching approach used by the course instructor           | 17        | 5.4     |
| 8      | Unsuitable assessment method and test items used by the course instructor   | 12        | 3.8     |
|        | Total   | 315       | 100     |

As depicted in Table 3 above, the most frequently reported reasons for scoring FX grade in the study area were the poor academic backgrounds of the students (40.6%) and health problems at the time of the exam (21.6%). Confirming this, most of the students at the time of their interview believed that they scored FX grades as they were still unable to understand the course, even after reading for many hours, because of their poor academic background. Another group of students admitted that they were unable to score the pass mark due to health problems they faced at the time of the exam (mid, test or final) and the unsatisfactory health service offered by the university clinic to restore them to health. Unexpectedly, 12.7% of the students replied that they intentionally scored FX grades in different courses. Regarding this, one of the interviewees who received an FX grade from CAES expressed that:

Due to violence in our campus, I found that it was difficult for me to understand all the courses in short time and score good grade. As a result, I calculated the total marks that I earned in continuous assessment of all my courses and decided to score FX in one of my courses so that I will get sufficient time to read other courses and prepare myself well.  $(S_{1,2})$ 

The other student from CHMS also reported that:

If your CGPA of basic or core courses are below C, you will not graduate at the end. Therefore, if I score low in mid exams of basic courses and feel that my final grade will be C or even less, I always guess my total scores of continuous assessment and work to score FX in that particular course. ( $S_7$ )

In support of the above interviewees, another irritated instructor also complained:

I don't agree with FX policy as it encourages students to be negligent in their reading and add burden on both the course instructor

and registrar data managers. If students score low in either of the assessment result due to their negligence or whatever reasons and think that they will not score pass mark in that specific course, they purposely reject that course (score FX) and work hard on the remaining courses. (13)

Exactly the same response was forwarded by a second instructor:

Amazingly, some students write only their names, ID number and work on very few questions leaving some questions empty and score FX grade. This indicates that, students are purposely scoring FX as they earn good grades after the re-exam. (I<sub>R</sub>)

In addition to the above reasons, 9.5% of students replied that the main reason for scoring FX grades was due to cheating at the time of the exam. Here are some of the excerpts taken directly from participants that support this finding:

My total score of continuous assessment was 35 out of 50. In final exam, the invigilator signed on my exam sheet while I was coping answers from my colleague. Once, if you get signature on exam paper, your result will be zero for that exam. As a result my total score of that course become 35 out of 100 and my final grade is unquestionably FX.

Similarly, the other interviewee from CEBS believed:

I had short note locally known as ATRERA in my pocket. While hidden seeing, the invigilator immediately caught me and signed on my exam paper. Hence, I scored zero out of 40 and my total assessment result became 38. As a result I scored FX grade.

In all the above cases, there is enough evidence to say that the poor academic background of the students themselves, cheating during the exam, deliberately scoring FX grades and health problems at the time of the exam were the major causes that exposed students to FX grades. In addition to these, a small number of participants responded that the poor cafeteria service (2.9%), being placed in a department that they were not interested in (3.5%), inappropriate utilization of the allocated time and traditional teaching approach used by the course instructor (5.4%), and unsuitable assessment methods and test items used by the course instructor (3.8%) were contributing factors to scoring FX grades. In support of these findings, Yalew (2003) found out that psychological (anxiety, fear of survival in college, lack of motivation and concentration), educational (difficulty of courses, high school or college curriculum incompatibilities), institutional (poor health services, lack of reference materials), environmental (hot weather, malaria) and financial problems were the main causes for student attrition at Bahir Dar University. In addition to the above factors, informants raised the issues of the absence of additional support in the form of tutorials, unsuitable dormitories, and a lack of information (guidance service) as other additional factors that contributed towards their low achievement (FX grades).

# 2. Courses in which students often score FX grades

Home-based courses (HBCs) are courses offered to students by instructors of that particular department, while cross-departmental courses (CDCs) refers to courses offered by instructors invited from other sister departments of the same college or other colleges. Table 4 below shows a detailed summary of the number of courses across all colleges of Haramaya University.

Table 4: Summary of courses in which FX grades were observed

| College   | No. of courses | where FX grades | were observed | No. of students wh | o scored FX grades |
|-----------|----------------|-----------------|---------------|--------------------|--------------------|
| College   | HBCs           | CDCs            | Total         | HBCs               | CDCs               |
| CAES      | 24             | 20              | 44            | 90                 | 138                |
| HiT       | 42             | 44              | 86            | 183                | 338                |
| CCI       | 15             | 10              | 25            | 135                | 46                 |
| CBE       | 17             | 8               | 25            | 162                | 112                |
| CNCS      | 9              | 11              | 20            | 35                 | 88                 |
| CoL       | 7              | 1               | 8             | 22                 | 14                 |
| CEBS      | 1              | 2               | 3             | 2                  | 20                 |
| CVM       | 4              | 0               | 4             | 12                 | 0                  |
| CHMS      | 6              | 16              | 22            | 29                 | 74                 |
| CSSH      | 24             | 5               | 29            | 77                 | 84                 |
| Sub total | 149            | 117             |               | 751                | 850                |

**Source:** Cluster registrars

As indicated in Table 4 above, the total number of HBCs (149) in which students scored FX grades is greater than in CDCs (117). However, the number of students who scored FX grades in HBCs (751) is fewer than in CDCs (850). This indicates that higher numbers of students are exposed to FX grades in CDCs when compared with HBCs, even if the number of CDCs is fewer than the number of HBCs in almost all programs. Appendix 3 has details about the courses in which a majority of students scored FX grades. To find out the reason(s) why a majority of students scored FX grades in CDCs, interviews were conducted with students and they informed us that instructors offering CDCs were less willing to use continuous assessment relative to instructors offering HBCs. The second reason noted by students was the time utilization of the instructors. Here is an excerpt taken from one of the student's interviews: "Some departments change the course instructors over and over;

as a result the newly assigned instructor lately starts the course and rush to finish it within the allocated time". Thirdly, the attention of students towards CDCs and HBCs is not balanced, meaning that most of the students emphasize and spend more time on reading for HBCs than CDCs. The reason for this, according to the students, was that if the CGPA of their core course is below 2, they will not graduate at the completion of their study; since most of the CDCs are either minor or supportive, they will have little or no effect on the students' final graduation, even if they score D or C – in such courses.

# 3. Implication of re-exams on improving the academic achievement of low scoring students

Grade after re-exam Grade before re-exam (FX) F FX D C- $\mathbb{C}$ C+ В B-B+ A-Α A+ Frequency 1553 239 159 170 314 401 123 64 45 17 13 6 2 10.2 10.9 20.2 25.8 7.9 100 15.4 4.1 2.9 1.1 0.84 0.39 0.13 Percent Failure mark Pass mark 882/56.8% 671/43.2%

Table 5: Summary of grade changes after re-exam

As shown in Table 5 above, 882 (56.8%) of the students who sat for a re-exam were unable to score the pass mark while the remaining 671 (43.2%) scored a pass mark (grade C and above) after a re-exam. This indicates that the re-exam offers a good opportunity and plays a great role in helping students to improve their academic achievement. Additionally, students who scored a pass mark at the time of their interview reported that re-exams are very important for saving time, as the alternative is repeating the course. That means, if there was no re-exam, 43.2% of students who scored a pass mark in their re-exam would have been expected to repeat the course with other groups of students and lag behind relative

to their batch. Similarly, one of the students who scored a failure mark in their re-exam complained:

Re-exam is really good and it helped many students to improve their academic achievement without taking the course for the second time. The problem is that, some instructors do not provide tutorials as intended by the university. Due to this, many students are still scoring non passing marks on re-exam and I am the one who failed for the second time.

Another student who scored a pass mark in their re-exam gave exactly the same response:

Thanks to re-exam, it was very difficult for me to score the current mark if there was no such principle. When I sit for the final exam on the course I scored FX, I was not in a good mood. As a result, I knowingly scored FX as it will help me to get sufficient time for further preparation.

Another instructor who was disappointed with the principle of the re-exam informed us of the following:

Re-exam is burden for instructors including me. Amazingly, some students write only their names, ID number and work on very few questions leaving some questions empty and score FX grade at the end. This indicates that, re-exam is highly benefiting such students as they earn good grades at the end.

In sum, from the data above we can say that the re-exam is becoming a good opportunity for students to improve their academic achievement, as additional tutorials and sufficient time for further reading and preparation accompany its implementation. In supporting the idea that the reexam is helping students to improve their academic achievement, and unlike the present research finding in which more than 50% of students

who sat for a re-exam were unable to score a pass mark, Belay (2007) concluded that poorly achieving students with a cumulative grade point average (CGPA) of less than 2 obtained passing grades while higher achieving students (those with a CGPA of 2 and above) received better grades than the passing grades after instructors regarded the originally submitted grades.

# 4. Association between students' study year level and the FX grade

As shown in Table 6 below, the Sig value 0.029 is less than 0.05 which indicates that there is a significant correlation between the study year level and the number of students who scored an FX grade. Hence, the null hypothesis that states there is no significant association between study year level and the number of students that scored an FX grade was rejected and the alternative hypothesis was accepted. Moreover, the Pearson correlation value r(1825) = -0.92, p < 0.05 indicates that there is a strong correlation between the two variables. The negative sign in this value indicates that both variables are inversely related. This means that, as the study year level of the students increased, the number of students who scored FX grade decreased and vice versa.

Table 6: Correlation between year level and number of students who scored FX grade

| Correlation                  |                     |         |         |  |  |  |  |
|------------------------------|---------------------|---------|---------|--|--|--|--|
| Year level Number of student |                     |         |         |  |  |  |  |
|                              | Pearson Correlation | 1       | -0.916* |  |  |  |  |
| Year level                   | Sig. (2-tailed)     | 0.029   |         |  |  |  |  |
|                              | N                   | 5       | 1827    |  |  |  |  |
|                              | Pearson Correlation | -0.916* | 1       |  |  |  |  |
| Number of students           | Sig. (2-tailed)     | 0.029   |         |  |  |  |  |
|                              | N                   | 1827    | 1827    |  |  |  |  |

<sup>\*</sup> Correlation is significant at the 0.05 level (2-tailed).

#### 5. Male and female students' achievements in re-exams

To determine whether there was a significant difference between genders in their achievements in re-exams, a t-test was computed. The results indicated in Table 7 below showed that t(971) = 1.0, p > 0.05, which indicates that there was no significant mean difference between male and female students' achievements in re-exams. Hence, the commonly held hypothesis – that there is no statistically significant mean difference in re-exam achievement between male and female students – was accepted.

**Independent Samples Test** Levene's Test for t-test for Equality of Means **Equality of Variances** 95% Confidence Interval Mean Difference of the Difference F t Df Sig. Lower Upper Equal 2.833 0.093 1.030 971 0.303 0.13777 -0.12477 variances **Achievement** assumed 0.40031 Equal 1.037 968.977 0.300 0.13777 12286 variance not assumed

Table 7: T-test result

#### 4. Conclusions and recommendations

Factors ranging from those related to students (their poor academic background, cheating during exams, deliberately scoring FX), instructors (inability to use the allocated time effectively, following traditional teaching approaches, inappropriate assessment methods and items) and institutions (insufficient health services, cafeteria-related problems) were found to be the main causes for students scoring low grades (FX). Therefore, it would be better if the following suggestions are considered for the future:

Students that purposely score an FX grade ought to be identified, as more students might consider the advantages of scoring an FX grade and become negligent in their reading and exam preparation.

- 2. Instructors should provide tutorials before allowing their students to take a re-exam as per the guidelines of the university to enhance the pass rate of students in re-exams.
- 3. Instructors should be required to properly utilize the time granted for specific courses and apply other active learning approaches rather than fixing their instruction on traditional lecture methods.
- 4. Instructors should apply continuous assessment and follow the principles of test construction while preparing exam items.
- 5. The management body of the university should work further on ensuring the continuation of tutorials on selected courses for lower achievers from the beginning of the first semester.
- 6. The management body of the university should discuss and develop clear guidelines for the implementation of re-exams. The possible areas of discussion could be incentives for additional tasks (tutorials), the standard of items in re-exams, the exact time for offering re-exams and reporting grades.

# Appendix 1: Point scales used to certify students' achievement in different higher education institutions

|                           |                                |  | Name of Institution  |  |
|---------------------------|--------------------------------|--|--|--|
|                           |                                | University of Iceland  | QUT and Griffith University  | Curtin University                              |
| Descriptions about scales | Total points used in the scale | 11   | 7  | 7  |
|                           | Numbers used in point scale    | 0-10   | 1-7  | F, 5, 6, 7, 8, 9, 10                           |
|                           | Pass mark indicators           | 5, 6, 7, 8, 9 and 10   | 4,5,6 and 7  | 5-10   |
|                           | Failure mark indicators        | 0, 1, 2, 3, and 4  | 1, 2, and 3  | F  |
| Desc                      | Honors                         | 7.25-8.99 – 1st class<br>honors<br>6.0-7.24 – 2nd class honors | 5.0-5.99 — 3rd class honors<br>6 — distinction<br>7 — high distinction | 7 – distinction<br>8, 9, 10 – high distinction |

Appendix 2: Grading scale of ethiopian higher education institutions' undergraduate programs

| Raw mark interval | Corresponding number grade | Corresponding<br>letter grade | Status description | Class description                    |  |
|-------------------|----------------------------|-------------------------------|--------------------|--------------------------------------|--|
| [90, 100]         | 4.0                        | A+                            |                    |                                      |  |
| [85, 90)          | 4.0                        | A                             | Excellent          | First class with<br>high distinction |  |
| [80, 85)          | 3.75                       | A-                            |                    | <b>9</b>                             |  |
| [75, 80)          | 3.5                        | B+                            | Vorugood           | First class with distinction         |  |
| [70, 75)          | 3.0                        | В                             | - Very good        |                                      |  |
| [65, 70)          | 2.75                       | B-                            | Good               | First class                          |  |
| [60, 65)          | 2.5                        | C+                            | Guu                | Second class                         |  |
| [50, 60)          | 2                          | С                             | Satisfactory       | Second ciass                         |  |
| [45, 50)          | 1.75                       | C-                            | Unsatisfactory     | Lower class                          |  |
| [40, 45)          | 1                          | D                             | Very poor          | romei ciass                          |  |
| [30, 40)          | 0                          | FX                            | *Fail              | - Lowest class                       |  |
| <30               | 0                          | F                             | Fail               | TOMESI (1922)                        |  |

Source: MoE (2012)

# Appendix 3: Courses in which a majority of students scored FX grades

| College | Course Code                        | Course Title                       | Dept. of Student                       | Dept. of the Owner of the Course | Year<br>Level | No. of<br>Students |
|---------|------------------------------------|------------------------------------|--|----------------------------------|---------------|--------------------|
|         | EnLa2012,<br>EnLa2014              | Basic writing skills               | Animal Science,<br>REBD, Plant Science | English                          |               | 28                 |
|         | NaRM1023                           | Soil and water conservation        | NaRM                                   | NaRM                             |               | 32                 |
| CAES    | EnSc2111                           | Environmental microbiology         | Environmental<br>Science               | Environmental<br>Science         | 2             | 13                 |
|         | PLSC2061                           | Agroclimatology                    | Plant Science                          |                                  | 1             | 13                 |
|         | ABVM0322                           | Principles of accounting           | ABVM                                   | Accounting                       | 1             | 13                 |
| CCI     | Stat1012                           | Introduction to probability theory | Statistics                             | Statistics                       | 1             | 28                 |
|         | Stat2102                           | Time series analysis               | Statistics                             | Statistics                       | 2             | 20                 |
| CSSH    | Phil102                            | Introduction to logic              | English, Tourism,<br>A/Oromo           | History                          | 1             | 42                 |
| СЭЭП    | EnLa2012,<br>EnLa1012              | Basic writing skills               | Journalism + NN                        | English                          | 1             | 32                 |
|         | ACFN3202                           | Principles of accounting II        | Accounting                             | Accounting                       | 2             | 33                 |
|         | Cact3111                           | Principles of accounting I         | Cooperatives                           | Accounting                       | 1             | 29                 |
| CBE     | COMP-M1043                         | Basic computer skills              | Management                             | Computer Science                 | 1             | 27                 |
|         |                                    | Statistics for management          | Management                             | Statistics                       | 1             | 21                 |
|         | AcFn3202                           | Principles of accounting II        | Economics                              | Accounting                       | 2             | 20                 |
| CHMS    | NURS2071                           | Professional nursing ethics        | Nursing                                | Nursing                          | 1             | 12                 |
| CEBS    | Phil102                            | Introduction to logic              | SNIE                                   | History                          | 1             | 15                 |
| CoL     |                                    |                                    |  |                                  |               |                    |
| CNCS    |                                    |                                    |  |                                  |               |                    |
| HiT     | Phil1031,<br>Phil1013,<br>Phil1041 | Logic and reasoning skills         |  |                                  |               |                    |
| SSA     |                                    |                                    |  |                                  |               |                    |

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