

# Effects of Applying Self and Peer Assessment Methods on Students Academic Progress in Debre Markos University Bure Campus: In the Case of Animal Science Department 1<sup>st</sup> and 2<sup>nd</sup> Year

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## Abstract

Peer and self assessment are techniques to evaluate students academic status. The study was conducted at debre markos university Bure campus on 1<sup>st</sup> and 2<sup>nd</sup> year animal science students. The objective of the study were targeted on two: 1) to differentiate the effect of usual and common assessment method and self and peer assessment methods on students' progress and 2) to describe effects of usual assessment methods and self and peer assessment methods after application. Peer and self-assessment has a role on students' academic progress and score better than the previous result. Peer and self assessment has also it enhances students' punctuality and time management as the measurement was continuous. Even if the assessment method improve teachers interactive teaching skills.

## 1. INTRODUCTION

### 1.1. Background

Etymologically speaking, the word education is derived from the Latin word 'educare' meaning 'to raise' and 'to bring up' and few others, the word 'education' has originated from another Latin term 'Educere' which means 'to lead forth' or 'to come out'. These meanings indicate that education seeks to nourish the good qualities and draw out the best in every individual. Education seeks to develop the innate or the inner potentialities of humans (NCERT, 2014). Ethiopia's population is among the least educated in the world, averaging fewer than two full years of formal schooling among the adults. Strengthening the country's human capital base to fuel its economic and social performance will require sustained investments in education. An important priority is to ensure that all Ethiopians acquire at least four years of primary schooling (world bank, 2005). The Ethiopian society of today appears to exhibit considerable internal strength as well as strong divisive features (Tekeste, 2006). There are different ways that the implementation of the new policy in general, and the action plan that developed thereof in particular, are assessed. One of such venue is the units within the ministry of education responsible for the curricula, educational programs, textbook production, educational media educational assessment and measurement and educational planning (UNESCO, 2001).

Assessment as part of classroom activities is a fundamental process required to promote learning and ultimately achievement. Assessment for Learning is all about informing learners of their progress to empower them to take the necessary action to improve their performance (Cheryl A Jones, 2005). Assessment serves many diverse purposes: motivating students; directing and enhancing learning; providing feedback to students on strengths, weaknesses and how they might improve; providing feedback to the lecturer about student understanding; and checking whether learning outcomes are being achieved (Zou, 2008, pp. 82-83). Classroom assessments do more than just measure learning. What we assess, how we assess, and how we communicate the results send a clear message to students about what is worth learning, how it should be learned, and how well we expect them to perform (ETS, 2003). Assessment of academic achievement outcomes has most often been used in a summative rather than formative way. Testing information tends to be used primarily as a screening device to decide who can continue to the next level rather than as a tool to help improve educational quality for individuals and systems. A project in Ghana has demonstrated that ongoing assessment of student performance can provide teachers with the information they need to improve student learning (UNICEF, 2000). Continuous assessment is part and parcel of instructional process that has to be taken as a key tool in educational quality assurance endeavor (Sintayehu, 2016).

### 1.2. Statement of the problem

The assessment methods in Ethiopia in general and in Debre Markos university bure campus in particular uses continuous assessment method. But there is no clear information which shows effective assessment type and evaluation method and there is no research done in the application of different assessment types on students' academic progress in the campus. Therefore, it is better to do a research on it the effects on students' progress.

### 1.3. Research questions

- How can we differentiate effects of usual and self and peer assessment methods on students' academic

progress?

- How can we describe effects of self and peer assessment methods on students' punctuality?

## **1.4. Objectives**

### **1.4.1. General objective**

To measure effects of applying self and peer assessment methods on students' progress

### **1.4.2. Specific objectives**

To differentiate the effect of usual assessment method and self and peer assessment methods on students' progress

To describe effects of usual assessment methods and self and peer assessment methods after application

## **2. RESEARCH METHODOLOGY**

### **2.1. Approach/designs of the study**

The study was conducted in Debre Mmarkos University bure campus located 450 km North West Ethiopia from Addis Ababa. This research was focused on first and second year animal science department students in Burie campus.

### **2.2. Research participant**

The research participant of this action research was first year and second year students with 29 and 19 classsize numbers respectively. These students could take participation with interactive learning and peer and self-assessment methods.

### **2.3. Sampling technique and sampling size**

Results of usual assessment methods of all students both 1<sup>st</sup> and 2<sup>nd</sup> year animal science students before practicing peer and self-assessment methods was taken to differentiate the effects of peer and self-assessments. The researchers were applying usual assessment methods before the application of peer and self-assessment. There after these two different assessment methods were applied to all students in both classes based on their course that they teach them. After the students practiced peer and self-assessments the researchers gave the assessment to the students to take results for the use of comparison of differences in between usual and the assessments after practicing peer and self-assessment methods.

### **2.4. Data gathering instrument**

The data was collected through well prepared questions which maintain consistency before and after self and peer assessment question. Researchers used hard copy record formats and Microsoft Exile for recording the results and the attendance data were taken through well prepared hard copy attendance formats to analyze the attendance, the participation and willingness of the students to these assessment methods.

### **2.5. Data analysis techniques**

The collected data was analyzed by using simple calculator through use of descriptive statistics based on their result before and after peer and self-assessments.

### **2.6. Proposed action strategies**

The research target on improvement of educational quality through application of self and peer-assessment methods in both classes. Through well prepared tests and hard copy attendance sheets the students could be evaluated their academic performance and attending the class.

### **2.7. Ways of implementing action strategies**

The strategies were implemented through applying well prepared questions and assessing the students after application of self and peer assessment methods. The researchers should gather the information on behavioral change of the students and taking the results of the students after assessing the test exam. The data were analyzed in descriptive statistics through using SPSS v 16:00 software.

### **2.8. Ways evaluating action strategies**

Evaluation techniques focus on students recorded academic results and interviewing students about the assessment method importance.

## **3. Result and discussion**

### **3.1. Effects of peer and self-assessment on students' academic progress**

The result after implementation of peer and self-assessment were changed to better performance. The change is

described in the table below in first is has 20% progressive result and in second year animal science students has on research methodology in animal science and biometry 15%and 20% respectively. Effectiveness of self - and peer - assessment in improving students' learning experience as the result shows.

Table 3. 1: mean results of before and after practicing of peer and self-assessments in sciences first and second year students.

Department	Course practiced	Year			
		First year		Second year	
		before peer and self-assessment	After peer and self-assessment	before peer and self-assessment	After peer and self-assessment
Animal science	Principles of animal nutrition	7	9	NA	NA
	Research methodology in animal science	NA	NA	7.5	9
	Biometry	NA	NA	6	8

**Key: NA=Not available**

Peer Assessment is the systematic process of peers assessing each other, this creates opportunities of close discussion between student which the idea is cope up with (Asuai Nelson, 2013). Peer assessment is one way to provide personalized feedback that scales to large classes. Besides these obvious logistical benefits, it has been conjectured that students also learn from the practice of peer assessment with that students can score more as reported by (sun dl et al., 2015).

Table 3. 2: The mean results of before and after practicing of peer and self-assessments in Animal science first and second year students on the mean of the three courses.

Year			
First year		Second year	
before peer and self-assessment (mean)	After peer and self-assessment(mean)	before peer and self-assessment (mean)	After peer and self-assessment (mean)
7	9	6.75	8.5

The progress of second year was 17.5% which showed recommendable. Students became more performance goal-oriented after receiving peer-referenced feedback and that they became more interested in the course after receiving self-referenced feedback as indicate on (Tae Seob Shin, 2010).

Table 3. 3: mean result of the three courses on first and second year animal science

before peer and self-assessment (mean)	After peer and self-assessment(mean)
6.875	8.75

#### 4.2. Effect of peer and self-assessment on student's punctuality and time management

We obtained better result of active classroom participation as presented in the table below table4.

Table 3. 4: Effect of peer and self-assessment on students' punctuality and time management

Year			
First year		Second year	
before peer and self-assessment (mean) % in class attendance	After peer and self-assessment(mean) % in class attendance	before peer and self-assessment (mean) % in class attendance	After peer and self-assessment(mean) % in class attendance
89.65	96.55	84.21	100

The result on the table4 showed there were differences after practicing of peer and self-assessment and the percentage of class attendance 7% and 16% differences first year and second year students respectively in the selected three courses. Participation in the peer assessment activity enhanced subsequent exam performance in all the three selected courses were scored higher after implementation of peer and self-assessment methods and the result cope up with the finding of (Rajiv S. Jhangiani, 2016).The result in table4 showed that students were actively involved with all presentations, increasing their attentiveness compared to previous classes when they were more passively involved and participated the result was in line with (C Philip Wheeler, 2005).

#### 4.3. Conclusion

Peer and self-assessment has a role on students' academic progress and also it enhances students' punctuality and time management. Even if the assessment method improves teachers interactive teaching skills

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