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Improving Implementation of Formative Continuous Assessment at College of Agriculture, Wolaita Sodo University, Ethiopia

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Abstract
Ethiopian Ministry of Education has designed different types of curriculums from elementary to higher educational levels, and policies how students should be evaluated for best grade score and/or to produce skilled human resources, but teachers evaluation system does not yet fully address the policy. The aim of this study was to evaluate teachers' and students' attitude towards formative continuous assessment and to take an action to raise their attitude. Twenty one lecturers and one hundred five second year students from all seven departments under College of Agriculture were selected as respondents. For the purpose of evaluating teachers' and students' attitude towards formative continuous assessment, 12-item question (both before and after interventions) on a Likert Scale was given. Accordingly, the overall percentage of incorrect answers were accounted 64% from teachers and 66% from students, which implies that more than half of the respondents have negative attitude towards formative continuous assessment and its implementation. Lack of awareness and positive attitude towards formative continuous assessment, inadequate teaching-learning facilities, large number of students per class, lack of motivation, lack of smooth relationship between students and teachers were some of the common issues that were reflected as factors which affects formative continuous assessment implementation during focus group discussions. Based on the results from the initial questions and focus group discussions, a refresher and awareness training was given to both teachers and students to raise their attitude. After all the actions, 12-item questions (exactly the same as the initial questions) were given again to the same size of respondents. For this reason, the overall percentage of correct answers were 66% from teachers and 68% from students, which showed that majority of the teachers and students have positive attitude towards formative continuous assessment and its implementation.

Keywords: Attitude, formative continuous assessment, intervention, Wolaita Sodo University.

INTRODUCTION

Formative continuous assessment (FCA) is any assessment made during the school academic year that is meant to improve learning and to help shape and direct the teaching-learning process. In this sense all continuous assessments are formative. Whereas Summative continuous assessment is an assessment made at the end of each semester based on the accumulation of the progress and achievements of the learner throughout the year in a given subject. The result of this assessment is an end-of-year letter grade. The purpose of continuous assessment is to improve learning and to help shape and improve the teaching-learning process. Continuous assessment also allows for the design of assessment tasks which fit the interests of a group of learners (NIED, 1999).

Formative continuous assessment (FCA) is sometimes described as 'assessment for learning' as distinct from 'assessment of learning'. Assessment for learning is any assessment for which the first priority in its design and practice is to serve the purpose of promoting students learning. It thus differs from assessment designed primarily to serve the purposes of accountability, or of ranking, or of certifying competence. An assessment activity can help learning if it provides information to be used as feedback, by teachers, and by their students, in assessing themselves and each other, to modify the teaching and learning activities in which they are engaged. Such assessment becomes 'formative assessment' when the evidence is actually used to adapt the teaching work to meet learning need (Black et al., 2005).

Formative continuous assessment (FCA) is important in education because it provides information about learning that can be used to diagnose learner strengths and needs, provide feedback on teaching and learning process, provide a basis for instructional placement, inform and guide instruction, communicate learning expectations, motivate and focus learner attention and effort, provide practice applying knowledge and skills, provide a basis for learner evaluation (e.g. grading) and gauge programme effectiveness (McTighe and Ferrara, 1994; Garrison and Ehrighaus, 2007; Ogar, 2007).

In today's policy environment, testing has become a critical component of educational reform. Policy makers and education administrators often view test, quiz, term paper, group discussion, assignment, etc. scores as a measure of educational quality and use each formative continuous assessment (FCA) scores to hold schools

accountable for teacher performance. Continuous assessment, an alternative or supplement to high stakes testing of student achievement, offers a methodology for measuring student performance and using those findings to improve the success of students (Plessiss and Prouty, 2007).

There are teachers in the Ethiopian school system who are aware of the advantages of continuous assessment and who are implementing it with success. The majority, however, seems to be hesitant and need assistance and guidance before they will be able to implement continuous assessment with confidence. It seems as if current education policies on continuous assessment are experienced as general, vague and insufficient in assisting teachers at classroom level. A clear conception of the meaning of continuous assessment and practical guidelines to assist teachers with its implementation are lacking. Teachers have some confusion on the practical importance and types of continuous assessment; whether it should be an integral part of a lesson plan or not (Ogar, 2007).

So far, no studies were conducted on the issue of "Formative Continuous Assessment" in the College of Agriculture, Wolaita Sodo University. Therefore, the purpose of this study was to identify factors that affect the implementation of Formative Continuous Assessment, to evaluate the attitude of teachers and students towards Formative Continuous Assessment and to fill the gaps in the attitude of teachers and students towards Formative Continuous Assessment and its implementation.

RESEARCH METHODOLOGY

Study Area

The study was conducted in Wolaita Sodo University, College of Agriculture by considering all the departments under the College; including both teachers and students as sample respondents.

Sample Size and Sampling Techniques

In this study multi-stage sampling techniques were used. In the first stage, College of Agriculture was purposively selected based on knowledge of the researchers (staff members of the College) and it is the oldest and more experienced College in the University in adopting and implementing Modular system. In the second stage, all seven departments under College of Agriculture were included in the study, and finally using simple random sampling techniques and probability proportional to size (PPS), 21 lecturers and 105 second year students were selected from those seven departments.

Data and Methods of Data Collection

Both primary and secondary data were collected. The primary data were collected from sample respondents and focus group discussions. The secondary data were collected from relevant sources such as books, departmental documents, internet, and journal articles. Data for this study were collected by using structured and semi-structured questionnaire, observation and checklists for focus group discussions. Likert Scale was also used to evaluate the attitude of teachers and students towards formative continuous assessment before and after intervention.

Methods of Data Analysis

After the completion of data collection, the collected data were compiled using statistical package for social science (SPSS) version 20. The data were analyzed using descriptive statistics such as, mean, percentage, and frequency distribution.

RESULTS AND DISCUSSION

Results from Teachers and Students before Intervention

The aim of this study was to improve the implementation of Formative Continuous Assessment (FCA) for 2nd Year College of Agriculture students, Wolaita Sodo University; and to take an action so as to raise the attitude of both teachers and students to a desirable state towards the successful implementation of FCA. For the purpose of evaluating teachers' and students' attitude towards FCA and its implementation, 12-item questions on a Likert scale was given to twenty one (21) teachers and one hundred five (105) 2nd year students at College of Agriculture both before and after an intervention (training). In the Likert Scale, the "strongly agree" and "agree" responses were regarded as correct answers while the "disagree" and "strongly disagree" responses of the respondents were as incorrect for both teachers and students. Accordingly, the overall percentage of incorrect answers from the initial designed statements (out of 12-quetions) were accounts 64% from teachers (Table 1) and 66% from students (Table 2), which implies that more than half of the teachers and students were leveled as low in their attitude towards FCA and its implementation.

Table 1: Results from teachers before intervention

No	Statements	Scale of agreements for FCA							
		SA		A		DA		SDA	
		No	%	No	%	No	%	No	%
1.	FCA imposes students to take assessments on a tight schedule	10	48	7	33	3	14	1	5
2.	FCA strengthens gender equality, communication skills, cultural exchange and relationships among students	2	10	3	14	6	29	10	48
3.	FCA is believed to improve low achieving students to be medium achievers	1	5	4	19	7	33	9	43
4.	FCA increases competition between students for best academic achievement	2	10	2	10	6	29	11	52
5.	FCA promotes students freedom of learning and time management	0	0	4	19	6	29	11	52
6.	FCA enables students to have smooth communication with their teachers/advisors	1	5	5	24	5	24	10	48
7.	FCA encourages students to take responsibility for their own learning	0	0	3	14	6	29	12	57
8.	FCA supports the shift from teacher-centered to student-centered learning	2	10	1	5	5	24	13	62
9.	FCA is strictly criticized for time consumption and promotes dependency among students	13	62	5	24	2	10	1	5
10.	Successful implementation of FCA is impossible without teaching-learning facilities	14	67	6	29	1	5	0	0
11.	FCA can be implemented with large number of students per classroom	0	0	3	14	8	38	10	48
12.	FCA cannot impose work load on teachers academic activities	1	5	3	14	7	33	10	48

Source: Survey result, 2015

Note: SA = Strongly Agree, A = Agree, DA = Disagree, SDA = Strongly Disagree and FCA = Formative Continuous Assessment

Table 2: Results from students before intervention

No	Statements	Scale of agreements for FCA							
		SA		A		DA		SDA	
		No	%	No	%	No	%	No	%
1.	FCA imposes students to take assessments on a tight schedule	45	43	29	28	17	16	14	13
2.	FCA strengthens gender equality, communication skills, cultural exchange and relationships among students	10	10	15	14	33	31	47	45
3.	FCA is believed to improve low achieving students to be medium achievers	11	10	17	16	30	29	47	45
4.	FCA increases competition between students for best academic achievement	9	9	15	14	33	31	48	46
5.	FCA promotes students freedom of learning and time management	5	5	11	10	34	32	55	52
6.	FCA enables students to have smooth communication with their teachers/advisors	5	5	13	12	29	28	58	55
7.	FCA encourages students to take responsibility for their own learning	3	3	18	17	35	33	49	47
8.	FCA supports the shift from teacher-centered to student-centered learning	8	8	20	19	36	34	41	39
9.	FCA is strictly criticized for time consumption and promotes dependency among students	40	38	25	24	22	21	18	17
10.	Successful implementation of FCA is impossible without teaching-learning facilities	43	41	31	30	20	19	11	10
11.	FCA can be implemented with large number of students per classroom	10	10	21	20	32	30	42	40
12.	FCA cannot impose work load on teachers academic activities	6	6	12	11	37	35	50	48

Source: Survey result, 2015

It was also evidenced that 72% of teachers and 80% of students (Table 3) were rated as their attitude about FCA and its implementation was “very low” or “low”.

Table 3: The general attitude of respondents about FCA and its implementation (before action)

Respondents	General question	How do you rate your attitude about FCA and its implementation				
	Agreement scale	Very low	Low	Good	Very good	Excellent
Teachers	No	9	6	5	1	0
	%	43	29	24	5	0
Students	No	58	26	14	7	0
	%	55	25	13	7	0

Source: Survey result, 2015

Results from Focus Group Discussions for both Teachers and Students

Focus group discussions were conducted with 21 teachers and 105 2nd year students to identify factors that affect FCA and its implementation. During focus group discussions there were number of issues that are raised from both teachers and students as a challenge towards FCA and its implementation.

a. Factors that were raised by teachers:

- ✓ Lack of awareness and positive attitude towards FCA,
- ✓ Clear understanding gap between FCA and summative assessment,
- ✓ Lack of adequate teaching-learning facilities such as laboratory, demonstration site, internet access, books, office, printer, white board, light, LCD, etc.,
- ✓ Time shortage or work overload,
- ✓ Large number of students per classroom (i.e. difficult to get assistances and appropriate management from instructors, promote cheating and dependency among students),
- ✓ Lack of motivation due to poor reward and recognition from superiors (i.e. delaying of payments),
- ✓ Lack of preparing appropriate lesson plan and students evaluation criteria,
- ✓ Poor willingness of students for FCA,
- ✓ Disappointment due to students cheating system, dependency among students, carelessness of students,
- ✓ Students are mostly depend only teachers material rather than reading/searching by themselves.

b. Factors that were raised by students:

- ✓ Lack of awareness and positive attitude towards FCA,
- ✓ Lack of adequate teaching-learning facilities like internet access, books, laboratory, etc,
- ✓ Shortage of time and/or takes more time to exercises assignment, term paper and projects (i.e. they assumed it puts in pressure),
- ✓ Lack of smooth relationship between students and their teachers,
- ✓ Lack of adequate support/advise from teachers,
- ✓ Some of the instructors act as a dictator,
- ✓ Financial constraints to process FCA duties such as writing by computer, printing, duplicating, searching internet, etc.,
- ✓ Teachers subject matter knowledge gap,
- ✓ Lack of appropriate preparation and plan from instructors,
- ✓ Lack of clear mark allocation for each question, poor evaluation and grading system of instructors,
- ✓ Lack of on time feedback from teachers about the progress and achievement of students,
- ✓ Teachers are not motivating students, etc.,
- ✓ Poor willingness of teachers to give tutorial and makeup classes,
- ✓ Poor participation among students in doing group assignments and project works,
- ✓ Poor application of different content/variety of the FCA (Fig. 1).

Figure 1. Partial View of Focus Group Discussions before Intervention

The Possible Interventions

As part of the action research process it was proposed that the action to be taken for the aforementioned problem shall be to give train for teachers and students on FCA and its implementation so as to raise their attitude, and to conduct group discussion on general issues regarding FCA as a second action.

Training and Group Discussions

Results from both teachers and students before intervention reveals that the overall percentages of incorrect answers were 64% and 66%, respectively. This implies that more than half of the teachers and students have negative attitude towards FCA and its implementation; which therefore demands action to be taken to bring change on their attitude.

Based on the results from the initial questionnaire, a refresher and awareness training was given to 21 teachers and 105 2nd year students to raise their attitudes to a desirable state about FCA and its implementation. The content of the training was basically focused on the concepts of formative continuous assessment, about what is and what is not assessment, the difference between formative continuous assessment and summative assessment (SA), give clear information about the who, why, when and how to give formative continuous assessment for the students, how can teachers draft an assessment code of practice (evaluation criteria), acquire skills in constructing assessment techniques and implementation of formative continuous assessment effectively in the teaching learning process; and finally, group discussions were made based on their feedback such as issues about opportunities, challenges and possible suggestions in the successful implementation of FCA (Fig. 2).

Figure 2. Partial View of Group Discussions during Intervention

Results from Teachers and Students after Intervention

After all the actions (training and group discussions), for the purpose of evaluating the changes on the teachers' and students' attitude towards FCA and its implementation, a 12-item questions (exactly the same as the initial questions) on Likert Scale was given again to twenty one (21) teachers and one hundred five (105) 2nd year students at College of Agriculture as selected samples. Like before intervention, in the Likert Scale, the "strongly agree" and "agree" responses were regarded as correct answers while the "disagree" and "strongly disagree" responses of the respondents were as incorrect. Accordingly, the overall percentage of correct answers were accounts 66% from teachers (Table 4) and 68% from students (Table 5), which implies that the majority of teachers and students have positive attitude towards FCA and its implementation after the interventions.

Table 4: Results from teachers after intervention

No	Statements	Scale of agreements for FCA							
		SA		A		DA		SDA	
		No	%	No	%	No	%	No	%
1.	FCA imposes students to take assessments on a tight schedule	2	10	1	5	7	33	11	52
2.	FCA strengthens gender equality, communication skills, cultural exchange and relationships among students	11	52	8	38	3	10	0	0
3.	FCA is believed to improve low achieving students to be medium achievers	15	71	5	24	1	5	0	0
4.	FCA increases competition between students for best academic achievement	12	57	7	33	1	5	1	5
5.	FCA promotes students freedom of learning and time management	9	43	6	29	4	19	2	10
6.	FCA enables students to have smooth communication with their teachers/advisors	11	52	7	33	1	5	2	10
7.	FCA encourages students to take responsibility for their own learning	10	48	5	24	3	14	3	14
8.	FCA supports the shift from teacher-centered to student-centered learning	11	52	8	38	1	5	1	5
9.	FCA is strictly criticized for time consumption and promotes dependency among students	0	0	2	10	8	38	11	52
10.	Successful implementation of FCA is impossible without teaching-learning facilities	3	14	4	19	6	29	8	38
11.	FCA can be implemented with large number of students per classroom	5	24	7	33	6	29	3	14
12.	FCA cannot impose work load on teachers academic activities	12	57	5	24	3	14	1	5

Source: Survey result, 2015

Table 5: Results from students after intervention

No	Statements	Scale of agreements for FCA							
		SA		A		DA		SDA	
		No	%	No	%	No	%	No	%
1.	FCA imposes students to take assessments on a tight schedule	9	9	12	11	33	31	51	49
2.	FCA strengthens gender equality, communication skills, cultural exchange and relationships among students	61	58	34	32	33	9	47	1
3.	FCA is believed to improve low achieving students to be medium achievers	41	39	45	43	15	14	4	4
4.	FCA increases competition between students for best academic achievement	55	52	38	36	9	9	3	3
5.	FCA promotes students freedom of learning and time management	51	49	39	37	10	10	5	5
6.	FCA enables students to have smooth communication with their teachers/advisors	59	56	33	31	9	9	4	4
7.	FCA encourages students to take responsibility for their own learning	48	46	34	32	15	14	8	8
8.	FCA supports the shift from teacher-centered to student-centered learning	68	65	32	30	5	5	0	0
9.	FCA is strictly criticized for time consumption and promotes dependency among students	4	4	13	12	37	35	51	49
10.	Successful implementation of FCA is impossible without teaching-learning facilities	20	19	19	18	34	32	32	30
11.	FCA can be implemented with large number of students per classroom	25	24	35	33	28	27	17	16
12.	FCA cannot impose work load on teachers academic activities	43	41	35	33	19	18	8	8

Source: Survey result, 2015

After the intervention it was also evidenced that 76% of the teachers and 87% of the students (Table 6) rated that their level of attitude towards FCA and its implementation were "good", "very good" and "excellent".

Table 6: The general attitude of respondents about FCA and its implementation (after action)

Respondents	General question	How do you rate your attitude about FCA and its implementation				
	Agreement scale	Very low	Low	Good	Very good	Excellent
Teachers	No	1	4	6	7	3
	%	5	19	29	33	14
Students	No	4	10	44	31	16
	%	4	10	42	30	15

Source: Survey result, 2015

SUMMARY AND CONCLUSION

The aim of this study was to evaluate the attitude of selected teachers and students towards FCA and its implementation at College of Agriculture; and to take action to raise their attitude to a desirable state. For the purpose of evaluating the teachers' and students' attitude towards FCA, a 12-item question on a Likert Scale was given to all the selected respondents. Accordingly, the overall percentage of incorrect answers from teachers and students were accounts 64% and 66%, respectively, which implies that more than half of the teachers and students have negative attitude towards the implementation of FCA. Based on the results from the initial questions and focus group discussions that was conducted before innervations, a refresher and awareness training was given to both selected teachers and students to raise their attitude to a desirable state. The content of the training was basically on the concept of FCA, FCA session plan and its implementation, time management systems and solutions towards the implementation of FCA; and opportunities, challenges and possible suggestions in implementing FCA. As the second action focus group discussion also conducted again on the issues of essence of FCA implementation packages so that learners can recognize the merits of FCA and active learning techniques. After all the actions, for the purpose of evaluating the changes on the teachers' and students' attitude towards FCA, a 12-item question (exactly the same as the initial questions) was given again to both teachers and students. Accordingly, the overall percentage of correct answers was 66% from teachers and 68% from students respectively, which implies that majority of the teachers and students were high (positive) in their attitude towards FCA and its implementation after the interventions

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