

Improving Academic Achievement through Continuous Assessment Methods: In the Case of Year Two Students of Animal and Range Sciences Department in Wolaita Sodo University, Ethiopia

Samuel Sarka¹ TsegayLijalem² Tilaye Shibiru³

1.Wolaita sodo University, Department of Agricultural Economics, PO box 138

2.Wolaita sodo University, Department of Animal and range science, PO box 138

3.Wolaita sodo University, Department of Veterinary Medicine, PO box 138

Abstract

The aim of this study was to assessing and implementing of continuous assessment to enhance academic performance of 2nd year Animal and Range Sciences department students in wolaita sodo university ; and to take action (train) to raise the academic performance to a desirable state. For the purpose of surveying the students' level of performance towards continuous assessment, a 12-item questionnaire (The Initial Questionnaire) on a Likert scale was given to all the 40 Animal and Range Sciences year II students. Accordingly, the overall percentage of poor performance answers was 54.6%, which implies that more than half of the students are leveled poor in their performance and attitude (awareness) towards continuous assessment. After all the actions (training , focus group discussion and implementation of continuous assessments), for the purpose of surveying the changes on the students' level of performance towards continuous assessment, a 12-item questionnaire (exactly the same as the Initial Questionnaire) on a Likert scale was given again to all the 40 Animal and Range Sciences year II students. Accordingly, the overall percentage of good performance answers was 85%, which implies that majority of the students (34 out of 40) are leveled high (preferably desirable) in their performance and attitude towards continuous assessment after the intervention.

Keywords: continuous assessments, Likert scale, academic Performance.

INTRODUCTION

Educational assessment is the process of documenting, usually in measurable terms, knowledge, skill, attitudes, and beliefs. Assessment can focus on the individual learner, the learning community (class, workshop, or other organized group of learners), the institution, or the educational system as a whole (also known as granularity).The final purpose of assessment practices in education depends on the *theoretical framework* of the practitioners and researchers, their assumptions and beliefs about the nature of human mind, the origin of knowledge, and the process of learning. Assessment is a central element in the overall quality of teaching and learning in higher education. Well-designed assessment sets clear expectations, establishes a reasonable workload (one that does not push students into rote reproductive approaches to study), and provides opportunities for students to self-monitor, rehearse, practice and receive feedback. Assessment is an integral component of a coherent educational experience. Different scholars indicated that impact of assessment methods on the learners featuring either the strong influence of assessment or the lack of it on the breadth and depth of student's learning, their approach to study, and retention (Amrein and Berliner, 2003).

Amrein and Berliner (2003)'s archival time-series analysis using the data of 18 states on four well-respected student achievement measures: the SAT (Scholastic Aptitude Test), the ACT (American College Test), the AP (Advanced Placement) tests, and the NAEP (National Assessment of Educational Progress) asserted that high-stakes testing program negatively affect the breadth and depth of student learning by narrowing the curriculum and abusing drill activities tied to the state tests. The comparison of each state's data on each summative assessment tool against the national data yielded no measurable improvement in student learning, but a much stronger account that 'high-stakes testing policies hurt student learning instead of helping it' (Drew, 2001).

On the contrary, Black and Wiliam (1998)'s extensive review of 250 published studies yielded a impactful conclusion that formative assessment does improve student learning with an impressive yet challenged effect side of 0.4. Moreover, many of the reviewed studies concluded that appropriately communicated formative assessment has positive impact on low achievers in particular, as 'it concentrates on specific problems with their work, and gives them both a clear understanding of what is wrong and achievable targets for putting it right' (Black and Wiliam, 2001). Thus, formative assessment is envisaged to reduce the gap between high and low-achieving students while raising achievement overall.

Assessment is carried out for different purposes. Zeleke (2013) mentioned some the purposes of assessment including assessing the performance of students, evaluating the effectiveness of and / or improve a particular strategy, curriculum program, teaching and obtaining data that help in decision making and

communicating with stakeholders. Similarly, Fenta, (2012) mention six purposes of assessment viz. 1) student learning performance, 2) improvement of teaching, 3) communication, 4) program evaluation, 5) program support, and 6) motivation. In general, assessment serves as a tool in gathering information on the progress of learners during the course of their learning.

Material and Method

Description of the Study Area

Wolaita zone is located 390km southwest of Addis Ababa following the tarmac road that passes through *Shashamane* to *Arbaminch*. Alternatively, it is located 330km southwest of Addis Ababa following the tarmac road that passes through *Hosanna* to *Arbaminch*. *Wolaita Sodo* is the town of the zone. It has a total area of 4,541km² and is composed of 12 *woredas* and 3 registered towns. It is approximately 2000 meters above sea level and its altitude ranges from 700-2900 meters. The population of *Wolaita* zone is about 1,527,908 million of which 49.3% are male and 51.7% are female (WZ FED, 2013). Out of these, 11.7% live in towns and the rest 88.3% live in rural areas.

Sampling Techniques

In the study area, multistage (step wise) sampling method was used. In Agriculture College, there are seven departments of which Animal and Range Sciences department year II students was selected purposively. Then students was stratified in two based on their sex male and female. In each sex the total students, was selected for the study.

Data Gathering Tools

To gather data for the research, semi-structured and structured questionnaire, interview, group discussion and secondary data (document) analyses was used.

Procedures of Data Gathering

Firstly, secondary data was gather from department head and registrar of the University. After obtaining secondary data, questions was provided by the researches. Then, questionnaire was print and duplicated after that the questionnaires distribute to selected students to answers the questions. At the same time interview was carried to target students, selected instructors, department heads. All the necessary follow up and monitoring of such activities was carried out by the researcher themselves.

Method of Data Analysis

The collected data was organized and analyzed using SPSS (Version, 20). Descriptive statistics such as mean and percentage of the likert scale was used to summarize the data and presented in the form of Table.

RESULTS AND DISCUSSION

Results from Initial Questionnaire

The aim of this study was to assessing and implementing of continuous assessment to enhance academic performance of 2nd year Animal and Range Sciences department students; and to take action (train) to raise the academic performance to a desirable state. For the purpose of surveying the students' level of performance in continuous assessment, a 12-item questionnaire (The Initial Questionnaire) on a Likert scale was given to all the 40 Animal and Range Sciences year II students.

In the Likert Scale, the "strongly agree" and "agree" responses were regarded as good performance while the "disagree" and "strongly disagree" responses of the respondents were as poor. Accordingly, the overall percentage of poor performance answers was 54.6%, which implies that more than half of the students are leveled poor in their performance and attitude (awareness) towards continuous assessment.

It is a common occurrence that assessment impact the learner's moods, their victorious moments as well as their haunted despair as the student makes an emotional investment in an assessment and expect some 'return' (Higgins *et al.*, 2001). Despite its discernible emotional attachment, this aspect of assessment consequence has hardly been elaborated in literature, evidenced by just 19 relevant studies in the review on the impact of summative assessment on motivation for learning conducted by Harlen and Deakin (2003). Though emotion is highly subjective, assessment is alleged to inherently induce stress and tension. Jough G, (2011)'s quantitative search (n=137) using the Intrinsic Motivation Inventory and the Brunel Mood Scale provided concrete evidence for the impact of assessment on mood and motivation in first-year students.

Table 1: Results from the Initial Questionnaire

| Statement of consideration | Level of performance, # & % of responses | | | | | | | |
|------------------------------------|--|----|-------|----|----------|----|-------------------|----|
| | Strongly agree | | Agree | | Disagree | | Strongly disagree | |
| | # | % | # | % | # | % | # | % |
| Mid exam | 0 | 0 | 3 | 9 | 19 | 48 | 18 | 44 |
| Test exam | 14 | 35 | 16 | 39 | 10 | 26 | 0 | 0 |
| Quiz exam | 10 | 26 | 16 | 39 | 14 | 35 | 0 | 0 |
| Final exam (100%) | 2 | 4 | 9 | 22 | 20 | 52 | 9 | 22 |
| Final exam (>,= 50%) | 14 | 35 | 3 | 9 | 9 | 22 | 14 | 35 |
| Final exam (< 50%) | 3 | 9 | 2 | 4 | 16 | 39 | 19 | 48 |
| Individual assignment | 2 | 4 | 9 | 22 | 14 | 35 | 16 | 39 |
| Group assignment | 0 | 0 | 5 | 13 | 19 | 48 | 16 | 39 |
| Presentation | 2 | 4 | 3 | 9 | 23 | 57 | 12 | 30 |
| Field evaluation in practical site | 19 | 48 | 14 | 35 | 5 | 13 | 0 | 0 |
| Report writing | 0 | 0 | 19 | 48 | 5 | 13 | 16 | 39 |
| Attendance | 12 | 30 | 16 | 39 | 10 | 26 | 2 | 4 |

source : 2008 survey

It was also evidenced that 54.6% of the students rated that their level of performance from continuous assessment as “very poor” or “poor”.

According to Norton (2007)’s case study; however, showed positive signs that assessment using Psychology Applied Learning Scenarios (PALS) may discourage students from taking a strategic, mark-orientated approach and equip them with the power of knowledge to apply into authentic situations.

In Addition according to Fuller and Clarke For analytical purposes it nevertheless makes sense to recognize that the home background and intellectual capacities of students make a lot of difference. When effectiveness and productivity interpretations of quality are at stake, it is usually considered relevant to construct value-added outcome indicators, that is, indicators that show the effect of malleable conditions of schooling over and above the impact of background conditions. For equity interpretations of quality, student background characteristics function as categorization criteria, to contrast groups with one another, for example, boys and girls, schools with a relatively small and a large proportion of students from minority groups, etc (Fuller and Clarke, 1994).

Table 2: The level of performance from continuous assessment (before action)

| Responses | How do you rate your level of performance from continuous assessment ? | | | | |
|-----------|--|------|------|-----------|-----------|
| | Very poor | Poor | Good | Very good | Excellent |
| # | 12 | 10 | 8 | 8 | 2 |
| % | 29.2 | 25.4 | 20.1 | 20.1 | 4.2 |

source : 2008 survey

Actions plan

As part of the action research process it was proposed that the action to be taken as a remedy for the aforementioned problem shall be to train the learners on continuous assessment so as to raise their performance; and to conduct focus group discussion with the selected instructors. It has been done so as per the proposal.

Training

The before intervention questionnaire result reveals that the overall percentage of poor performance answers was 54.6%, which implies that more than half of the students are leveled poor in their performance towards continuous assessment; which therefore demands action to make a difference on the performance of the students.

Based on the results from The Initial Questionnaire, therefore, a refresher and awareness training was given to Animal and Range Sciences year II students to raise their performance to a desirable state. The content of the training was basically on the concepts of continuous assessment and opportunities, challenges and possible suggestions in implementing and impact of continuous assessment to improve the performance of the students.

The review by McDonald (2001) yielded considerable evidence of the prevalence of the fear of tests and its detrimental effect on test performance of children in compulsory education. Huxhamet *al.* (2010) reached the same conclusion that oral assessment might induce more anxiety than written assessment as the former is associated with a richer conception of the oral task, a deeper understanding and a need to explain to others. On the bright side, if appropriately conducted, assessment is a sharp tool to empower the learners (Leach *et al.*, 2001).

Focus Group Discussion

As the second action, focus group discussion was also conducted with selected instructors leading continuous assessment and implementation of the packages so that learners can recognize the merits/impacts of continuous assessment. After the training and group discussion different instructors assigned to given different assessment

methods to check their performance level and the performance of the students after performance was improved in some assessment methods. The instructors were also recommended to focus on the methods that the students performance was good.

A well-qualified and motivated teaching force is to be seen as one of the most vital assets for educational quality. Indicators on teachers as individuals or of the total stock of teachers in a country can be categorized in various ways. a distinction is made between descriptive background characteristics of teachers, knowledge and skills, attitudes and morale relative to general working conditions and attitudes with respect to the work situation at school and student staff ratios. Only part of these indicators is likely to be available on the basis of national statistics and would depend on the availability of school or teacher surveys (OECD, 1998).

Results from Post-intervention Questionnaire

After all the actions (training and focus group discussion), for the purpose of surveying the changes on the students' level of performance towards continuous assessment, a 12-item questionnaire (exactly the same as the Initial Questionnaire) on a Likert scale was given again to all the 40 Animal and Range Sciences year II students. Like before intervention, in the Likert Scale, the "strongly agree" and "agree" responses were regarded as good performance answers while the "disagree" and "strongly disagree" responses of the respondents were as poor.

Accordingly, the overall percentage of good performance answers was 85%, which implies that majority of the students (34 of 40) are leveled high (preferably desirable) in their performance and attitude towards continuous assessment after the intervention.

Table 3: Results from the Post-intervention Questionnaire

| Statement of consideration | Responses, # & % of responses | | | | | | | |
|------------------------------------|-------------------------------|----|-------|----|----------|----|-------------------|----|
| | Strongly agree | | Agree | | Disagree | | Strongly disagree | |
| | # | % | # | % | # | % | # | % |
| Mid exam | 27 | 54 | 13 | 46 | 0 | 0 | 0 | 0 |
| Test exam | 8 | 21 | 4 | 10 | 12 | 29 | 16 | 42 |
| Quiz exam | 20 | 50 | 20 | 50 | 0 | 0 | 0 | 0 |
| Final exam (100%) | 15 | 38 | 15 | 38 | 5 | 12 | 5 | 12 |
| Final exam (>= 50%) | 27 | 54 | 11 | 42 | 0 | 0 | 2 | 4 |
| Final exam (< 50%) | 20 | 50 | 18 | 46 | 0 | 0 | 2 | 4 |
| Individual assignment | 12 | 42 | 18 | 46 | 4 | 8 | 2 | 4 |
| Group assignment | 18 | 46 | 18 | 46 | 4 | 8 | 0 | 0 |
| Presentation | 13 | 33 | 18 | 46 | 4 | 8 | 5 | 12 |
| Field evaluation in practical site | 27 | 54 | 8 | 32 | 0 | 0 | 5 | 12 |
| Report writing | 8 | 33 | 27 | 54 | 5 | 12 | 0 | 0 |
| Attendance | 10 | 25 | 22 | 50 | 10 | 25 | 0 | 0 |

source : 2008 survey

After the intervention it was also evidenced that all (100%) of the students rated that their level of performance due to continuous assessment as "good" (37.5%) or "very good" (55%) or "excellent" (7.5%) (Table 4). Alternative assessment is also addressed as meaningful and worthwhile with the potential to measure would-be-transferable qualities, skills and competences, and encourage and reward genuine learning achievements. The students' perceptions of poor learning, lack of control, arbitrary and irrelevant tasks in relation to traditional assessment contrast sharply with those of high quality learning, active participation, feedback opportunities and meaningful tasks in relation to alternative assessment (Sambell *et al.* (1997).

Table 4: The Level of performance on continuous assessment (after intervention)

| Responses | How do you rate your level of performance from continuous assessment? | | | | |
|-----------|---|------|------|-----------|-----------|
| | Very poor | Poor | Good | Very good | Excellent |
| # | 0 | 0 | 15 | 22 | 3 |
| % | 0 | 0 | 37.5 | 55 | 7.5 |

source : 2008 survey

CONCLUSION AND RECOMMENDATION

The aim of this study was to assessing and implementing of continuous assessment to enhance academic performance of 2nd year Animal and Range Sciences department students; and to take action (train) to raise the academic performance to a desirable state.

After all the actions (training ,focus group discussion and implementation of continuous assessments), for the purpose of surveying the changes on the students' level of performance towards continuous assessment, a 12-item questionnaire (exactly the same as the Initial Questionnaire) on a Likert scale was given again to all the 40 Animal and Range Sciences year II students. 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 poor. Accordingly, the overall percentage of good performance answers was 85%, which implies that majority of the students (34 of 40) are leveled high (preferably desirable) in their performance and attitude towards continuous assessment after the intervention.

As the second action focus group discussion also conducted with selected instructors leading on the issues of impact of continuous assessment and implementation of the packages so that learners can recognize the merits of continuous assessment.

This result is similar to Sambell *et al.* (1997) reported on a two and a half year longitudinal project on the consequential validity of both traditional and alternative assessment methods on student learning. The study hails a triumph of alternative assessment methods (open-book exams, projects, peer assessment, and group assignments) over traditional ones (multiple choice testing and essay question exams) in long-term retention, educational worth, fairness, and channeling students’ effort to achieve deep learning.

After the intervention it was also evidenced that all (100%) of the students rated that their level of performance on continuous assessment responded as “good” (37.5%) or “very good” (55%) or “excellent” (7.5%).

All instructors are recommended to apply continuous assessment like practical exam, quiz, group assignment, report writing and final exam < 50% for their students in order to improve their academic performance.

REFERENCES

- Amrein, A.L. and Berliner, D.C. (2003) 'The effects of high-stakes testing on student motivation and learning', *Educational Leadership*, (February), pp. 32-38.
- Black, P. and Wiliam, D. (1998) 'Assessment and classroom learning', *Assessment in Education: Principles, Policy & Practice*, 5(1), pp. 7-74.
- Black, P. and Wiliam, D. (2001) 'Inside the black box: raising standards through classroom assessment', *BERA Conference*. 6 November, 2001. pp. 1-14.
- Drew, 2001) 'Perceptions of what helps learn and develop in education', *Teaching in Higher Education*, 6(3), pp. 309-331.
- Fenta B (2012). The Effects of Implementation of Continuous Assessment In Practical and Theoretical Classes of Sport Science Students In Debre Markos And Baher Dar Universities. MSc Thesis submitted to the School of Graduate Studies of Addis Ababa University. 98 pp.
- Fuller, B., & Clarke, P. (1994). Raising school effects while ignoring culture? Local conditions and the influence of classroom tools, rules and pedagogy. *Review of Educational Research*, 64, 119–157.
- Harlen, W. and Deakin Crick, R. (2003) 'Testing and motivation for learning', *Assessment in Education: Principles, Policy & Practice*, 10(2), pp. 169-207.
- Higgins, J. Hermans, M. (2001) 'The dialogical self: Toward a theory of personal and cultural positioning', *Culture & Psychology*, 7(3), pp. 243-281.
- Huxham, M., Campbell, F. and Westwood, J. (2010) 'Oral versus written assessments: a test of student performance and attitudes', *Assessment & Evaluation in Higher Education*, 37(1), pp. 125-136.
- Jough in, G. (2007) 'Student conceptions of oral presentations', *Studies in Higher Education*, 32(3), pp. 323-336.
- Leach, L., Neutze, G. and Zepke, N. (2001) 'Assessment and empowerment: some critical questions', *Assessment & Evaluation in Higher Education*, 26(4), pp. 293-305.
- McDonald, A.S. (2001) 'The prevalence and effects of test anxiety in school children', *Educational Psychology*, 21(1), pp. 89-101.
- Norton, L. (2007) 'Using assessment to promote quality learning in higher education', in Campbell, A. and Norton, L. (eds.) *Learning, Teaching and Assessing in Higher Education: Developing Reflective Practice*. Exeter: Learning Matters Ltd.
- Norton, L.S., Tilley, A.J., Newstead, S.E. and Franklyn-Stokes, A. (2001) 'The pressures of assessment in undergraduate courses and their effect on student behaviours', *Assessment & Evaluation in Higher Education*, 26(3), pp. 269-284.
- OECD/CERI 1998. *Assessment for Learning Formative Assessment*. OECD/CERI International Conference “Learning in the 21st Century: Research, Innovation and Policy”
- WZ FED (Wolaita Zone Finance and Economic Development), (2013). *The 2013 Yearly Report on Wolaita zone and Rural Woredas' Economy*, Unpublished.
- Zelege, A., S (2013) A comparative study on the practice of continuous assessment between Addis Ababa and Unity Universities. *Global Science Research Journals*, 1(1):050-058.