

# Awareness and Utilization of Classroom Assessment Techniques in Higher Education: The Case of a State College in Bicol

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**Abstract** –Assessment plays a crucial role in the delivery of quality education. In the triad of education, assessment is considered one of the key areas aside from curriculum and instruction; thus, educators need to give premium to classroom assessment techniques. This descriptive study determined the level of awareness and extent of utilization of classroom assessment techniques by faculty of a state college in Bicol. Respondents were seventy-six (76) randomly chosen permanent and Contract of Service faculty provided the data by answering a questionnaire. Findings show that the faculties were moderately aware of formative assessment technique and summative assessment technique. Likewise, the faculty moderately utilized both the formative assessment and summative assessment techniques. Pearson product-moment correlation test results show that there is a significant relationship between the level of awareness and the extent of utilization of assessment techniques. Over-all, it is concluded that the higher the level of awareness of the faculty, the higher is their extent of utilization of classroom assessment techniques. Among the proposed measures to enhance utilization of classroom assessment technique are training in classroom assessment by external experts, intensive follow-up activity after the training, and classroom observation.

**Keywords** –Education, formative assessment, summative assessment, survey method

## INTRODUCTION

Assessment of students' work is critically important as it is an approach designed to help teachers find out what students are learning inside the classroom and how well they are learning it. Assessing student performance is a critical responsibility of teachers [1]. Using it improves teaching and learning [2]-[7].

The use of classroom assessment techniques (CATs) defines the actual curriculum in higher education and dominates the lives of students. As found indispensable in the goal for quality and excellence, conscious efforts in the use of CATs are of primordial concern. Among educational institutions, be it in the primary education or the tertiary level, this mechanism is and should be a priority. Education today must have directional focus and should be responsive and relevant; thus, the use of CATs is a tool to meet this objective.

As cited by Gonzales [8], educators aim for quality education and this is the call of the times. According to him, quality education is a function of four (4) components, namely: the teacher, the school, the

learner, and the instructional materials and facilities. He further added that effective teaching depends on a large extent on the quality of material in the hands of dedicated and knowledgeable teachers in an environment conducive to learning.

On the contrary, according to Wolcott [9], classroom assessment is a strategy that helps determine the learning of students based on lectures, readings, and other course experiences. This assists in ascertaining knowledge and skill levels, critical thinking, synthesis and creative thinking, application and performance, attitudes and values, and problem-solving skills of students. With this vast array of rubrics found imperative in the assessment of undergraduates' learning, greater challenges in meeting the demands for quality education is offered.

In the comprehensive review of assessment methods and their use, Palomba and Banta [10] further described assessment as a process that focuses on student learning. They added that it is a process that involves reviewing and reflecting on practice as academics have always done, but in a more planned and careful way. Such has been supported by the set

of recommendations for educational assessment given by Pellegrino, et al. [11]. The author argued that improvements in learning will depend on how well assessment, curriculum, and instruction shifts in response to the information gained from assessments.

Assessment decisions could substantially improve student performance, guide teachers in enhancing the teaching-learning process and assist policy makers in improving the educational system [12]. It was stressed that in the assessment of learning, teachers deal with intangibles and attempt to characterize them in a manner that learners would understand them widely.

Realizing the benefits derived from such exercise of managing the teaching-learning process, teachers as well as academic leaders consider it a challenge to cope with the new trends and developments in the modern world. Decades ago, one who can exactly tell the facts and figures created an excellent impression. With the sign of the times, however, it is equally valuable how to function well, interact with people and cope with the changing times.

With this situation, universities and colleges are urged to be more responsive and relevant to the delivery of quality and excellent education. As Commissioner Angeles [13] puts it, the kind of graduates directly tells the type of investment educational institutions provide to their students. It is imperative that the state of the art learning facilities be adhered to by school administrators along with the hiring of the best teachers who can deliver state of the art teaching strategies. Emphatically, he urged State Universities and Colleges (SUCs) to act aggressively and decisively on his words.

The College under study is one among the eight (8) SUCs in Region V (Bicol) that has continually done its best efforts in adhering to the call for quality education. Now, on its 26<sup>th</sup> year of existence, it may have made its name in the region and beyond guided by its Vision, Mission, Goals, and Objectives. With a compulsion to respond to the challenges at hand, it is imperative to sustain quality learning in effective and efficient ways. However, most of the faculty members are graduates of non-education related courses and have not attended seminars and/or trainings along teaching. Hence, many may not feel adequately ready to conduct appropriate classroom assessment.

The primary concern of the study explored the relationship of the level of awareness and extent of utilization of formative and summative classroom assessment techniques. It anchored on the

Constructivist's point of view for its theoretical paradigm. It shows that the level of awareness and extent of utilization of classroom assessment techniques have an impact on the learning process of the students.

Quoting from the Constructivist's viewpoint, "In the classroom, learning can point towards a number of different teaching practices. In the most general sense, it usually means encouraging students to use active techniques (experiments, real-world problem solving) to create more knowledge. Then to reflect on and talk about what they are doing and how their understanding is changing. The teacher makes sure she understands the students' pre-existing conceptions and guides the activity to address them [14].

### **OBJECTIVES OF THE STUDY**

This study aimed to determine the level of awareness and extent of utilization of the classroom assessment techniques by the faculty of the College. Moreover, it determined the level of awareness and extent of utilization of the formative and summative assessments. It also aimed to correlate level of awareness and the extent of utilization of classroom assessment techniques of the faculty. Data gathered was used as bases in the measures proposed to enhance the utilization of the classroom assessment techniques in the College.

### **MATERIALS AND METHODS**

This study used descriptive-correlational method. A 41-item researcher-made questionnaire with Cronbach  $\alpha = 0.889$  was answered by 55 regular and 21 contract of service faculty respondents (out of 63 regular and 70 contract of service) from the Engineering, Health Care Technology, Management and Entrepreneurship, and Information and Communications Technology.

Total enumeration of 133 regular and contract of service faculty was used in the study. However, there was only a retrieval rate of 57%. The low retrieval is caused by the non-submission of accomplished questionnaire from the contract of service faculty. However, significant participation is noticed from the regular faculty with a retrieval of 87%.

The level of awareness and extent of utilization of classroom assessment technique was evaluated using a 5-point Likert scale. The following scales were used to interpret the level of awareness and extent of utilization of classroom assessment techniques: 1.00-

1.79, Not at all aware (NA)/Never (N); 1.80-2.59, Slightly aware (SA)/Rarely (R); 2.60- 3.39, Somewhat aware (SIA)/Sometimes (S); 3.4-4.19, Moderately aware (MA)/Often (O); 4.20-5, Extremely aware (EA)/Always (A).

Data were gathered during the second semester through a questionnaire that was distributed to all regular and contract of service faculty through their respective department heads. After one week, accomplished questionnaire was submitted to the office while those who did not submit, questionnaires were retrieved from them. Data from the questionnaires were tallied and statistically analyzed.

Weighted mean was used to describe the level of awareness and extent of utilization of both formative and summative assessment techniques. Pearson Product Moment Correlation coefficient verified the existence of a relationship between the level of awareness and extent of utilization. The level of significance was 0.05.

## RESULTS AND DISCUSSION

**Formative Assessment.** Formative assessment uses feedback to adapt teaching to meet student needs [15] within the phase of the lessons. This technique allows faculty to change strategy within the course to improve learning [16] and is closely related to instructional practices [17]. She added that the faculty must be aware how different strategies support learning objectives and utilize this data to enhance teaching and learning. Table 1 shows the level of awareness on the formative assessment techniques.

Table 1. Level of Awareness on the Formative Assessment Techniques

Techniques	WM	Int.
Pre/Post Testing	4.45	EA
Minute Paper	3.08	MA
Muddiest Point	3.16	MA
Directed Paraphrasing	3.25	MA
Three Question Survey	4.41	EA
Recall, Summarize, Question, Comment, Connect	3.97	MA
Assignment Assessments	4.07	MA
Misconception/Preconception Check	3.91	MA
<b>Composite Mean</b>	<b>3.79</b>	MA

The faculty of the College is moderately aware ( $\bar{x}$  = 3.79) in their use of the formative assessment

techniques. Very striking though is the fact that they are extremely aware of the pre/post testing ( $\bar{x}$  = 4.45) and the use of the three question survey ( $\bar{x}$  = 4.41). On the other hand, they are somewhat aware of minute paper ( $\bar{x}$  = 3.08) and muddiest point ( $\bar{x}$  = 3.16). The results further imply that the faculty clearly understands the nature and use of the varied techniques for formative assessment. Such will provide them a better direction for the use of said tools.

Such has been supported by the set of recommendations for educational assessment given by Pellegrino, et. al. [18]. He argued that, “improvements in learning will depend on how well assessment, curriculum, and instruction shifts in response to the information gained from assessments.” Faculty with enough grips of the varied tools can accurately deliver his lessons and derive the best results.

The extent of utilization of the formative assessment techniques is shown in Table 2. Consequently, formative assessments that are always used are pre/post-testing ( $\bar{x}$  = 4.29) and three question survey ( $\bar{x}$  = 4.24) while minute paper ( $\bar{x}$  = 2.96), muddiest point ( $\bar{x}$  = 3.03) and directed paraphrasing ( $\bar{x}$  = 3.34) are sometimes used.

Table 2. Extent of Utilization of the Formative Assessment Techniques

Techniques	WM	Int.
Pre/Post Testing	4.29	A
Minute Paper	2.96	S
Muddiest Point	3.03	S
Directed Paraphrasing	3.34	S
Three Question Survey	4.24	A
Recall, Summarize, Question, Comment, Connect	3.82	O
Assignment Assessments	3.99	O
Misconception/Preconception Check	3.70	O
<b>Composite Mean</b>	<b>3.67</b>	O

Enerson [19] attests that the minute paper is the fastest method to elicit written response from students on what they have learned during the day’s lesson. Wolcott [9] posits that the best formative assessments provide accurate information about strengths, weaknesses, and gaps in student knowledge and/or skills. Angelo & Cross [20] stressed that the minute paper has a focus on understanding while muddiest point elicits topics that were clear from the day’s

class. Purcell [21] stressed that minute paper and muddiest point should be implemented and evaluated for the project management course. Project management course is a subject in all engineering programs of the College Formative assessment techniques transfers the importance from teaching to learning [22] and are often ( $\bar{x} = 3.67$ ) used by the faculty.

**Summative Assessment.** Summative assessment is usually implemented as an evaluation of teaching made by the faculty. It may be after a topic, a chapter, or at the end of the semester. Table 3 reveals the level of awareness on the summative assessment techniques.

Table 3. Level of Awareness on the Summative Assessment Techniques

Techniques	WM	Int.
Essay	3.67	MA
Oral presentation	3.72	MA
Practical Examination	4.17	MA
Case Study/Case Analysis	4.21	EA
Projects	4.43	EA
Graded Assignments	4.34	EA
Quiz	4.17	MA
Interview	4.25	EA
<b>Composite Mean</b>	<b>4.12</b>	MA

The faculty is moderately aware of the summative assessment techniques ( $\bar{x} = 4.12$ ). The data though shows that the faculty is more adept in the use of these summative assessment tools than formative assessment as there are tools where they are extremely and moderately aware and not one said somewhat aware.

The faculty is extremely aware of projects ( $\bar{x} = 4.43$ ) and interview ( $\bar{x} = 4.25$ ). Almost all subjects in the course/ programs of the College require a project at the end of the semester. Interviews are conducted to capture the essence of the learning acquired. Alternatively, they are moderately aware of essay ( $\bar{x} = 3.67$ ) and oral presentation ( $\bar{x} = 3.72$ ). According to the faculty, in an essay, students are required to consolidate their ideas on the theme in logical manner to relay their thoughts, usually in one or two paragraphs on a specified topic. Oral presentation is mostly performed by students enrolled in the Bachelor of Science in Nursing degree during their return demonstration.

The data is reflective of the fact that most often,

the faculty make use more of these tools in the varied disciplines where they are more at ease. Students, instead, can cope with these tools. As mentioned by Wolcott [23], summative assessment provides information about whether students have met the learning objectives. Summative assessments summarize student learning at a point in time, and teachers typically do them at the end of the course (e.g., a final exam or project). Assessment used during instruction can have a profound impact on student achievement. However, to do so, the assessments must provide accurate information, and they must be used in appropriate ways.

Table 4 reveals the extent of utilization of the summative assessment techniques. For the utilization of the summative assessment, teachers always use projects ( $\bar{x} = 4.21$ ) and graded assignments ( $\bar{x} = 4.29$ ). In projects, students are required to apply concepts in the output desired in the subject. Applying concepts measure their level of competence while graded assignments asked students to answer questions either as a follow-up of a past lesson or advance lesson presentation. However, data provides that the faculty often ( $\bar{x} = 4.00$ ) use summative assessment techniques. True enough, such methods are more familiar with the faculty and that they are more akin on how to use these methods as evaluative tools.

Table 4. Extent of Utilization of the Summative Assessment Techniques

Techniques	WM	Int.
Essay	3.59	O
Oral presentation	3.54	O
Practical Examination	4.03	O
Case Study/Case Analysis	4.14	O
Projects	4.21	A
Graded Assignments	4.29	A
Quiz	4.00	O
Interview	4.20	A
<b>Composite Mean</b>	<b>4.00</b>	O

The faculty used these tools often as they are more familiar with it and that students are more at ease with such tools. The use of these tools is commonly done to commence the learning of the students after a covered chapter or period or to evaluate how well the students understood the lessons.

**Test of Significant Relationship.** The study verified if there exists a significant relationship between the level of awareness and the extent of

utilization of classroom assessment techniques of the faculty.

A Pearson product-moment correlation coefficient was computed to assess the relationship between the level of awareness and extent of utilization of formative assessment techniques. Table 5 shows that there was a correlation between the two variables,  $r = 0.988$ ,  $n = 8$ ,  $p < 0.001$ . The null hypothesis is rejected in favor of the research hypothesis.

It means that there is a very strong positive relationship between the level of awareness and the extent of utilization of the formative assessment technique. It implies that the higher the level of awareness of the formative assessment techniques, the broader the scope of its use.

Table 5. Test of Relationship Between Level of Awareness and Extent of Utilization of the Formative Assessment Techniques

Variables	Extent of Utilization	
Level of Awareness	Pearson correlation	0.988
	Sign. (2-tailed)	< 0.001
	N	8

Similarly, a Pearson product-moment correlation coefficient was computed to assess the relationship between the level of awareness and extent of utilization of summative assessment techniques. Table 6 shows that there was a correlation between the two variables,  $r = 0.974$ ,  $n = 8$ ,  $p < 0.001$ . The null hypothesis is rejected in favor of the research hypothesis.

Table 6. Test of Relationship Between Level of Awareness and Extent of Utilization of the Summative Assessment Techniques

Variables	Extent of Utilization	
Level of Awareness	Pearson correlation	0.974
	Sign. (2-tailed)	<0.001

It means that there is a strong positive relationship between the level of awareness and extent of utilization of the summative assessment technique. It implies that the higher the level of awareness of the summative assessment techniques, the broader the scope of its use.

Based on the findings derived from the study, the researchers propose the following actions to enhance the utilization of either the formative or summative tools: organize a Faculty Development Program

geared towards the delivery of the varied modalities in the use of the classroom assessment techniques. Invite experts on CAT to emphasize both theoretical and practical demonstration. Intensive follow-up activity be done by discipline/ area of specialization to focus on what best classroom assessment techniques could be applicable thus elicit maximum student learning. Teachers may now provide this activity at the departmental level. Classroom observation and feed-backing as well be done regularly to monitor the use of the varied classroom assessment techniques. Follow-up study be conducted as post-evaluation after the abovementioned suggested measures are adopted to determine the impact of its delivery in the enhancement of the utilization of the classroom assessment techniques.

### CONCLUSION AND RECOMMENDATION

Faculty has a limited awareness and utilization of the different formative assessments that gives instant feedback to both faculty and students to improve learning. Additionally, there is a significant relationship between the level of awareness and extent of utilization of both the formative and summative assessment techniques.

Utilizing the concept of Constructivists' theory, at first, teachers must be aware of the different formative assessment techniques so that they will be able to apply varied techniques. Constructivist teachers encourage students to assess regularly how the activity is helping them gain understanding. Self-examination of strategies used by faculty, students in a constructivist classroom ideally becomes "expert learners".

This gives learners ever-broadening tools to keep learning. With a well-planned classroom environment, the students learn how to learn. When they continuously reflect on their experiences, students find their ideas gaining in complexity and power, and they develop increasingly strong abilities to integrate new information. One of the teacher's principal roles is to encourage this learning and reflection process. The knowledge and competence of the faculty on the use of CAT significantly affect students' learning.

The researchers recommend that the faculty employ varied classroom assessment techniques in a course that has synergy for an efficient teaching-learning process. The academic unit shall develop programs for classroom assessment to increase the awareness of faculty on this mode of evaluation.

Lastly, the developed measures of classroom assessment technique are implemented to enhance its utilization. Moreover, similar study may be conducted in private higher educational institutions (HEIs) and consider the evaluation of students.

The study was limited to a state college having a small number of faculty. Moreover, it did not consider the assessment of the students and immediate supervisors.

## REFERENCES

- [1] Mertler, C. A. & Campbell, C. (2005). Measuring teachers' knowledge & application of classroom assessment concepts: development of the Assessment Literacy Inventory, URL: <http://eric.ed.gov/?id=ED490355>, date retrieved: August 11, 2014
- [2] Waugh, C. K. & Grolund, N. E. (2010). *Assessment of student achievement* (10<sup>th</sup> ed.). Boston: Pearson.
- [3] Black, P. and William, D. (2001). Inside the black box: raising standards through classroom assessment, URL: <http://weaeducation.typepad.co.uk/files/blackbox-1.pdf>, date retrieved: September 10, 2014
- [4] SHarlen, W., & Crick, R. D. (2003). Testing and motivation for learning assessment in education. *Assessment in Education*, Vol. 10, No. 2, URL: <http://goo.gl/CaxHMI>, date retrieved September 19, 2014
- [5] Stipek, D. J. (2002). *Motivation to learn: Integrating theory and practice*. Boston: Allyn and Bacon.
- [6] Steadman, M. (1998). Using classroom assessment to change both teaching and learning, URL: <http://goo.gl/2DCAZ7>, date retrieved: September 21, 2014
- [7] Angelo, T. A., and Cross, K. P. (1993). *Classroom assessment techniques: a handbook for college teachers*. (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass.
- [8] Gonzales, A. (1999). Providing Science Scholarship. *Journal of Education*, Vol. XLV, No. 8.
- [9] Wolcott, K. S. (2006). *The Appraisal of teaching Concepts and Process*. USA: Addison Wesley Publishing Company, Inc.
- [10] Palomba and Banta. (1999). Teaching Students with Different Learning Styles. *CDTL Brief*, Vol. 9, No. 1.
- [11] Pellegrino, et. al. (2001). *Training: A How to Book for Trainers and Teachers*. Manila: National Bookstore.
- [12] Guzman-Santos, R. (2007). *Assessment of Learning*. Quezon City: Lorimar Publishing Inc.
- [13] Angeles, E. (2008). Excerpt from Speech Delivered at AACUP Annual Conference, Manila Hotel.
- [14] Chopra, R. & Gupta (2011). Impact of constructivism approach on science achievement of 8<sup>th</sup> grade standard students. *International Journal of Education and Allied Science*, URL: <http://search.proquest.com/docview/1221535923?accountid=141440>, date retrieved: September 10, 2014
- [15] Black, P. and William, D. (2001). Inside the black box: raising standards through classroom assessment, URL: <http://weaeducation.typepad.co.uk/files/blackbox-1.pdf>, date retrieved: September 10, 2014
- [16] Boyd, B. L. (2001). *Formative classroom assessment: Learner focused*, URL: <https://www.questia.com/library/journal/1P3-71777336/formative-classroom-assessment-learner-focused>, date retrieved: July 23, 2014
- [17] Boston, C. (2002). *The concept of formative assessment*, URL: <http://eric.ed.gov/?id=ED470206>, date retrieved: September 10, 2014
- [18] Pellegrino, et. al. (2001). *Training: A How to Book for Trainers and Teachers*. Manila: National Bookstore.
- [19] Enerson, D. M., K. M. Plank, & R. N. Johnson. (2007). *An introduction to classroom assessment techniques*, URL: [http://www.uc.edu/content/dam/uc/cetl/docs/classroom\\_assessment\\_techniques.pdf](http://www.uc.edu/content/dam/uc/cetl/docs/classroom_assessment_techniques.pdf), date retrieved on November 4, 2014
- [20] Angelo, T. A., and Cross, K. P. (1993). *Classroom assessment techniques: a handbook for college teachers*. (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass.
- [21] Purcell, B. M. (2014). Use of formative classroom assessment techniques in a project management course. *Journal of Case Studies in Accreditation and Assessment*, 3(1). URL: <http://www.aabri.com/manuscripts/131690.pdf>, date September 19, 2014
- [22] Barr, R.B. and Tagg, J. (1995). From teaching to learning-a new paradigm for undergraduate education. *Change*, 27, 12-25.
- [23] Wolcott, K. S. (2006). *The Appraisal of teaching Concepts and Process*. USA: Addison Wesley Publishing Company, Inc.

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