

Enhancing Academic Performance of Grade 9 Students in Economics through Formative Assessment Strategies: A Proposed Formative Assessment Protocol

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Abstract: This study was intended to enhance the academic performance of grade 9 students in Economics through the use of formative assessment that also serves as a foundation for proposed formative assessment protocol.

This study was quasi-experimental in nature. The participants in this study were purposively selected among grade 9 students based on the result of their pretest. The researcher-made Pretest and Posttest were the primary instrument used, which was subjected to face and content validity before its execution. After the full implementation of the study, the data collected was analyzed and interpreted using T-test to see if significant difference happened between the pre-test and post-test, as well as ANOVA to determine if there is significant difference among the results of the formative assessment strategies employed.

The pretest result of the students showed that most of them got scores below average scores, and majority of the respondents don't possess prior knowledge on the topics in Microeconomics. Thus, a formative assessment intervention is needed. Moreover, the posttest result revealed that the students garnered above average scores, which means that they performed well in the posttest. Formative assessment strategies given to the students improved their performance in the post-test.

Most of the questions that were identified as least mastered skills both in the pretest and posttest are related to mathematical problems. Likewise, a significant difference had also been found between the results of the pretest and the posttest which also mean that the formative assessment strategies utilized were effective in enhancing the academic performance of the respondents. Furthermore, the respondents' grades also improved from satisfactory level to very satisfactory level. Likewise, a significant difference was also found in the result of the formative assessments. It means that the utilized formative assessment strategies are all effective based on their applicability on certain topics. The result of the study led to the creation of a formative assessment protocol.

Established upon the outcome drawn from the findings and conclusions of this study, it is hereby recommended that Teachers must employ a thorough, detailed and in-depth use of formative assessment inside the classroom in order to further enhance the academic performance of the students. Moreover, feedback or getting the result of formative assessment is important and should be done by teachers regularly in order to determine the current state of their students learning. Likewise, intensive integration of formative assessment strategies base on its applicability must be done by curriculum writers in the curriculum so that transfer of

learning from the teacher to the students will become possible. Similarly, formative assessment protocol used in this study may be used as reference for future studies and can be utilized not only by teachers of Economics but also by teachers from other disciplines. Lastly, further study may be conducted by future researchers on the effectiveness of enhancing the academic performance of students using different assessment technique such as pre-assessment and summative assessment.

Keywords: araling panlipunan, economics, formative assessment, formative assessment protocol, grade 9 students

1. Introduction

The educative process is a two way process which involves the teacher in giving important information and teaching vital skills and of learners who receive these information and skills. It is unending process of providing and getting knowledge between the teacher and the students. In the middle of the educative process lies another phase of learning that many teachers find interesting not only as a means of checking students learning but also as a spot check on students' performance, this is called as assessment. The process of assessment enables teachers to check what the learners know, what they already learned and what other things they need and want to be acquainted with.

Assessment involves measurement and evaluation, while instruction involves teaching and learning, go hand in hand, both of which center on the holistic improvement of the students. In the planning phase of instruction, it is essential for the teachers to be acquainted with diverse kinds of teaching strategies that make them versatile and critical. It also involves checking students learning before, throughout, and after instruction that will be supported by employing assessment tools and strategies.

Formative assessment is a scheme of collecting information regarding students learning which utilizes informal assessment techniques. Formative assessment happens during classroom discussion of certain topics. It is in a form of enjoyable undertakings that are experienced by the learners and assess their learning's. To provide feedback on the students'

performance inside the classroom and the things they needed to be enriched and enhanced, outcomes of the formative assessment were gathered although they are not graded or marked. These outcomes of the formative assessment can aid the teachers in determining what competencies the learners need to understand further and what the things they already mastered (Regier, 2012).

The teachers may give formative assessment in the middle of instruction and may adjust or make necessary modifications in the process of instruction to satisfy what is necessary for the students to learn. Teacher can utilize an assessment strategy then modify the teaching process so that it can adapt with the learners need then may reassess learning using the same or different assessment technique.

Teachers can use formative assessment as a checkpoint in assessing students learning. If the outcomes of formative assessment tell the teacher that the learners are progressing well in the instruction phase, then it is good for the teacher to continue the process but still need to check or assess students learning from time to time. On the contrary, if the teacher found out that their students are missing important concepts, principle and skills regarding a certain topic; they may stop and give formative assessment technique that will help in improving the performance and learning opportunities of the students and re-introducing vital concepts, principles and skills in a new way. Formative assessment provides opportunity for the teacher to check learning even though the instruction phase is still ongoing and correct some concepts that are misunderstood by the learners.

Formative assessment strategies are not only useful to the teachers but also to the students. Formative assessment strategies can aid students to make a self-assessment of their own learning and adopt new learning strategies to achieve the required goals or objectives of a specific subject. Formative assessment strategies can work as a map for students to track their learning and use enjoyable activities that are responsive to their needs and to the standards of the curriculum.

2. Research Questions

This study aimed to enhance the academic performance of grade 9 students in Economics through the utilization of formative assessment. It intends to sought answers on the following questions:

1. What are the results of the pretest?
2. What are the results of the posttest?
3. Is there a significant difference between the results of the pretest and the posttest?
4. Is there a significant difference in the results of the formative assessments?
5. What is the mean learning gain of the students?
6. What formative assessment protocol can be proposed from this study?

3. Research Hypothesis

H_{01} : There is no significant difference between the pretest and posttest.

H_{02} : There is no significant difference in the results of the formative assessment.

4. Methodology

The population of this study was the Grade 9 students of Pres. Corazon C. Aquino High School enrolled in the first semester for the academic year 2018-2019, and were taking Economics. The researcher used Purposive sampling technique, Purposive sampling, a kind of non-probability sampling, where the researcher intentionally chooses particular elements or subjects for inclusion in a study with the intention of ensuring that the features will have specific characteristics significant to the study. The researcher sought the permission from the authority to administer the instrument to the students and permission to conduct the study at Pres. Corazon C. Aquino High School through a letter addressed to the Principal of the School. After the administration of the pretest, the researcher checked and recorded the scores and purposively selected students who became respondents of this study based on the result of the pretest vis-à-vis the existing learning standards prescribed by the Department of Education.

After the respondents had been chosen, the researcher determined the appropriate formative assessment strategies that were responsive to the needs of the learners and suited to their learning capabilities. These were integrated in the daily lesson plan. These students were taught together with the non-participants of the study because they came from different sections and cannot be merged into single group.

After the implementation and experimentation of the determined formative assessment strategies, a posttest was administered to see the improvement in the academic performance among the students. The administration of the posttest likewise served as the summative assessment that determined the enhancement in the academic performance of the students brought about by the execution of formative assessment strategies. Lastly, as a product of the result gained from the summative assessment, a formative assessment protocol was developed from the implementation of this study.

5. Result

1. The mean score of the respondents in the pretest was below average. Most of them failed in the pretest therefore they were subject to undergo this study. In addition to that, the scores obtained by the respondents were not dispersed. Moreover, "Ugnayan ng Pamilihan at Pamahalaan", "Estruktura ng Pamilihan" and Demand were identified as the most mastered competencies among the students in their pre-test performance. While topics such as "Elastisidad ng Demand" and "Supply at Elastisidad ng Supply" were identified as the least mastered competencies in the pretest.

2. The mean score of the students in the posttest was superior. All of the students passed the posttest and grasped the entire lesson for the unit and meet the objectives set for every topic. However, the scores obtained by the respondents were dispersed compared to the pretest. Furthermore, the topic “Estruktura ng Pamilihan”, “Ugnayan ng Pamilihan at Pamahalaan” and Demand were identified as the most mastered competencies among the students in the posttest. However, the topic “Elastisidad ng Demand” and “Supply at Elastisidad ng Supply” were identified as the least mastered competencies among the students in the post-test.
3. It was found out that there was a significant difference in the result of the pretest and posttest of the students.
4. A significant difference was found out in the results of the formative assessment. Posthoc test for multiple comparisons also showed that there is significant difference between the results of each formative assessment strategies utilized in the study.
5. The respondents mean learning gains was 71.715%. It shows that methodologies in the employment of formative assessment strategies were successful on its purpose to enhance students learning gain in Economics.
6. The figure shows the procedural flow of the proposed formative assessment protocol that may follow by teachers in the proper application of formative assessment strategies. It will start with the planning stage. In the planning stage, the teacher should determine what are the topics or subject matters need to be addressed. The teacher may ask for the help of master teachers and subject coordinator in order to come up with a plan on the implementation of appropriate formative assessment strategies.

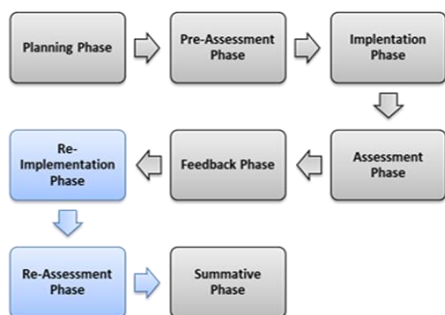


Fig. 1. Procedural flow of the proposed formative assessment protocol

These formative assessment strategies may be included in the lesson plan. The next stage is the pre-assessment phase. The teacher will administer the diagnostic or the pre-test in order to know who among the students will need reinforcement and enrichment through formative assessment strategies. After determining the students who need enrichment and reinforcement, the next step will be the implementation of formative assessment strategies that will be responsive to the needs of the learners. Variety of formative assessment strategies can be utilized depending on the needs of the learners and on the topic being discussed.

6. Conclusion

From the findings enumerated above, the researcher was able to formulate the following conclusions:

1. Most of the students’ grades in the first quarter are within satisfactory level.
2. Most of the students scored below average in the pretest of this study due to different circumstances such as lack of prior knowledge. Thus, a formative assessment intervention is needed.
3. Most of the questions that were identified as least mastered skills both in the pretest and posttest are related to mathematical problems.
4. Even though different formative assessment strategies employed in this study yielded different mean, all of them are effective as to the respective lesson they were utilized due to their applicability to these topics.
5. Formative assessment strategies given to the students contributed to their improved performance in the posttest.

7. Recommendation

Established upon the outcome drawn from the findings and conclusions of the study conducted on the enhancement of academic performance of Grade 9 students through the use of different formative assessment strategies, the following are hereby recommended;

1. Teachers should employ a thorough, detailed and in-depth use of formative assessment inside the classroom in order to further enhance the academic performance of the students.
2. Feedback or getting the result of formative assessment is important and should be done by teachers regularly in order to determine the current state of their students learning.
3. Intensive integration of formative assessment strategies base on its applicability must be done by curriculum writers in the curriculum so that transfer of learning from the teacher to the students will become possible.
4. Formative assessment protocol used in this study may be used as reference for future studies and can be utilized not only by teachers of Araling Panlipunan but also by teachers from other disciplines.
5. Further study may be conducted by future researchers on the effectiveness of enhancing the academic performance of students using different assessment technique such as pre-assessment and summative assessment.

References

- [1] Black, P., & Wiliam, D. (2008). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability (formerly: Journal of Personnel Evaluation in Education)*, 21(1), 5-31.

- [2] Buchanan, T. (2014). The efficacy of a World-Wide Web mediated formative assessment. *Journal of Computer Assisted Learning*, 16, 193-200.
- [3] Cowie, B. (2010). A Model of Formative Assessment in Science Education. *Assessment in Education: Principles, Policy & Practice*, 6(1), 101-116.
- [4] Crooks, T. J. (2008). Educational assessment in New Zealand schools. *Assessment in Education: Principles, Policy & Practice*, 9(2), 237-253.
- [5] Dweck, L. M., (2007). Formative assessment requires artistic vision. *International Journal of Education & the Arts*, 8(4), 1 – 23. Retrieved from <http://ijea.asu.edu/v8n4/>
- [6] Gipps, C. (2002) Sociocultural perspectives on assessment. In G. Wells & G. Claxton (Eds), *Learning for life in the 21st century: sociocultural perspectives on the future of education* (pp. 21–31). Oxford: Blackwell.
- [7] Hodell, M. (2009) Intrinsic motivation in the classroom, In: C. Ames & R. Ames (Eds.), *Research on Motivation in the Classroom*, (Vol. 3, pp. 73-105). San Diego, CA: Academic Press.
- [8] Janssens, S. (2005, August 1). Students' Perceptions about Evaluation and Assessment in Higher Education: A Review. *Assessment and Evaluation in Higher Education*, 30(4), 325-341.
- [9] Kagan, D. M. (1992). Implication of research on teacher Belief. *Educational Psychologist*, 27(1), 65-90.
- [10] Martinez, J.G.R. & Martinez, N. C. (2010) Re-examining repeated testing and teacher effects in a remedial mathematics course. *British Journal of Educational Psychology*, 62, 356-363.
- [11] Nespor, J. (2012). The Role of Beliefs in the Practice of Teaching. *Journal of Curriculum Studies*, 19(4), 317–328.
- [12] Regier, N. (2012). 60 Formative Assessment Strategies. Edmonton, Canada: Regier Educational Resource.
- [13] Stiggins, R. J., Arter, J. A., Chappuis, J., & Chappuis, S. (2009). *Classroom assessment for student learning: Doing it right—Using it well*. Portland, OR: Assessment Training Institute.