

# Activity-based Teaching: Its Effects on the Student Performance in Economics Subject of Agusan National High School, Philippines

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# ABSTRACT

This study was undertaken to determine the effects of activity-based teaching on the performance in economics of high school students of Agusan National High School. Specifically, this study sought to investigate the effects of activity-based teaching-learning modalities like the game show, quiz bee, talk show, drama and musikahan to the performance of the learners towards economics. There were 168 respondents selected through lottery method of the random sampling technique. The research instruments employed in the study consisted of two sets; the first set was the questionnaire for assessing student's interest, enthusiasm, learned lessons, activities, comprehensiveness, acceptability, and appropriateness of the strategies applied by the teacher, patterned after that of the Philippine Australia Project on Education Teaching Strategies. Pre-test and Post-test were also utilized to test the efficacy of the teaching-learning modalities and to measure the learning of the respondents. The respondents who were subjected to teaching-learning modalities like the game show, quiz bee, talk show, drama and musikahan were able to assess the extent of their satisfaction through the use of the instrument tool. The finding of the study revealed that game show, quiz bee, talk show, drama and musikahan are all very satisfactory as perceived by the respondents. Moreover, when respondents are subjected to different activity-based learning modalities, post-test results revealed that many of the students rose to excellent level as evidenced by the increased of total scores from pre-test to post-test. The data revealed that the respondents had gained knowledge and skills as shown by the increase of their scores from the pre-test to post-test.

Keywords: activity-based teaching, teaching-learning modalities

# **1** Introduction

The ultimate goal in any discipline is to effect a change in the learner's life. The search for effective and efficient methods of teaching has been a subject of research among many educators and researches. Although many research studies have shown that a learner's performance is a product of interrelated factors such as his mental ability, home and family background, school environment, and related others, some researches assert

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that teachers' method of teaching itself is one determinant of successful learning (Luna, 2000). And what each pupil/ student learns depends upon his own needs, interest, and problems.

In short, the content of knowledge is not an end in itself, but a means to an end (Tianero & Tianero, 2000). According to Heck (2009) that it has been proven that teachers have an important influence on students' academic achievement. They play a crucial role in educational attainment because the teacher is ultimately responsible for translating policy into action and principles based on practice during interaction with students. They stand in the interface of the transmission of knowledge, values, and skills in the learning process through the instructional strategies they employ in the classroom. Watson and Ecken (2003) stated that teachers prefer instructional strategies that make their work easier based on their belief, personal preferences, and norms of discipline. However, according to Kimani, Kara, and Njagi (2013), if the teachers' instructional strategies are ineffective, then the students will achieve inadequate progress academically. The level of achievement of students in school depends on the degree of effectiveness of instructional strategies used by the teacher.

One of the major issues and concerns encountered in the situation is the poor achievement of the learners. Many teachers struggle with motivating students to learn. This is especially prevalent in social studies classrooms in which students perceive social studies as boring (Schug, Todd, & Berry, 1984; Shaughnessy & Haladyana, 1985). Looking at the problems intervention is necessary to address the problems encountered in teaching social studies. Thus, this study is conceptualized to ascertain the effects of activity-based teaching-learning modalities that include the game show, quiz bee, talk show, drama and musikahan towards the student performance in Economics subject.

Teachers almost at all levels complain about the poor performance of students in their subjects. They complain that their students seem to lack interest in the subject especially those of Araling Panlipunan or Social Studies. The author or researcher of this study observes that most of her students find the subject boring and uninteresting. This is also supported by Schug et al. (1984), and Shaughnessy and Haladyana (1985) in their study students, perceive social studies as boring. The researcher wants to improve the performance of her students in economics where she is currently teaching. She believes that conducting activity-based study employing the experimentalist and pragmatist approach to teaching-learning may help remedy the problem of low performance.

## 2 Statement of the Problem

This study attempted to ascertain the effects of activity-based teaching-learning modalities in economics among respondents in Agusan National High School, Butuan City. Specifically, it sought answers to the following concerns:

1. what is the performance of respondents regarding Pre-Test and Post-Test scores in Economics when subjected to activity-based teaching-learning modalities?; and,

2. is there a significant relationship between activity-based teaching-learning modalities between the pre-test and post-test scores of respondents?

## **3** Theoretical Framework of the Study

This study is anchored on the theory of John Dewey about "learning by doing." Learning by doing makes learning easier as stated by Charles Peirce and William James (as cited by Tianero & Tianero, 2000). This is based on the philosophies of empiricism and pragmatism and modified by instrumentalism.

According to those who view knowledge as power, the fundamental purpose of education is to achieve knowledge. Teaching to achieve knowledge is essential if the teacher will make it possible for the student to discover the truth. In short, the subject matter is of value itself. It contains the body of knowledge that enables the student to discover the truth of his natural environment, and it provides the bases for the cultural and personal growth of the ideal person (Tianero & Tianero, 2000).

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Instrumentalists, on the other hand, believe that knowledge is only a by-product of thinking. To them, the sole aim of education is to enable the student to know how to think. Thinking begins when an individual feels a problem. It is then that he formulates a plan of action or activities or ideas to determine what may solve the problem. Therefore, lessons should be designed to solve the problem through an activity.

In analyzing the nature of knowing, there are four types of propositions. Once clarified, these propositions provide us with an intelligent basis for examining the questions "can we know anything that can be said without the sense of experience"? This statement has been proven that a sense of experience through activity can be effective teaching-learning methodology. Most educators believe that learning by doing has 65 to 80% learning effectiveness. While the traditional lecture inputs method provide only about 25% learning of the total knowledge discussed by the teacher (Sevilla, et al., 1992).

According to Ayeni (2011), teaching is a process that involves bringing about desirable changes in learners so as to achieve specific outcomes. In order for the method used for teaching to be effective, Adunola (2011) maintains that teachers need to be conversant with numerous teaching strategies that take recognition of the magnitude of complexity of the concepts to be covered. Under the teacher-centered instructional strategies, students simply obtain information from the teacher without building their engagement level with the subject being taught. The approach is least practical, more theoretical and memorizing (Teo & Wong, 2000). It does not apply activity based learning to encourage students to learn real life problems based on applied knowledge. Since the teacher controls the transmission and sharing of knowledge, the lecturer may attempt to maximize the delivery of information while minimizing time and effort. As a result, both interest and understanding of students may get lost. To address such shortfalls, Zakaria, Chin, and Daud, (2010) specified that teaching should not merely focus on dispensing rules, definitions and procedures for students to memorize, but should also actively engage students as primary participants.

#### 4 Methodology

This study used the descriptive and correlational method. The choice was based on the fact that this research undertaking was a fact-finding. It was an organized attempt to analyze, interpret, and report the different strategies and methods of teaching-learning experiences based on activities planned by the teacher and performed by the students. On top of them, significant relationship was determined. The respondents of the study involve the 304 students coming from 6 different class sections handled. The total size is 168 students determined by ratio and proportion on 55% out of 304 student population. The random sampling technique was used in selecting the respondents, the students from each section were required to draw a one-eight size rolled paper each (noted with x and y). All those who drew the rolled paper mark x are considered samples. The respondents have been grouped into males and females.

The research instruments employed in the study consisted of two sets. The first set was the questionnaire for assessing student's interest, enthusiasm, learned lessons, activities, comprehensiveness, acceptability, and appropriateness of the strategies applied by teachers in activity-based learning to include: drama, talk show, games, quiz bee and musikahan. This questionnaire is patterned after that of Philippine Australia Project on Basic Education Teaching Strategies and was administered after every activity was done. The activity-based teaching modalities: drama, talk show, games, quiz bee and musikahan was administered once, after each lesson. The second set of the research instrument was a teacher-made question for assessing performance on the lesson learned for every activity-based teaching strategy employed in this study. It was a 25 items test administered upon respondents before and after the conduct of each activity-based teaching modalities, which was done separately. The scores of the students in the pre and post tests are considered as dependent variables of the study.

Descriptive statistics was used to describe the student's test performance and activity-based learning such as mean, frequency, and percent. The t-test is used to determine the significant gains of the activity-based strategies employed in this study such as scores obtained from pre and post-test. And Pearson's Product Moment Correlation and T-test is also used to determine the significant relationship between teachinglearning modalities and post-test scores of students in the activity-based learning strategies.

#### **5** Results and Discussion

This chapter deals with the presentation, analysis, and interpretation of data gathered for the study.

#### 5.1 Students' Performance in the Pre-test and Post-test when Subjected to Different Activity-Based Learning Modalities

Table 1 shows that data on the pre-test and post-test scores of respondents when subjected to different learning modalities.

#### Table 1

Pre-test and post-test scores of respondents in different activity-based teaching-learning modalities

| Desfermence Level      |         | Activity –Based Teaching-Learning Modalities |           |          |           |       |           |
|------------------------|---------|--|-----------|----------|-----------|-------|-----------|
| Performance Level      |         |  | Game Show | Quiz Bee | Talk Show | Drama | Musikahan |
| Excellent              | (21-25) | Post   | 65        | 63       | 32        | 33    | 14        |
|                        |         | Pre  | 4         | 2        | 2         | 0     | 0         |
| Very satisfactory      | (16-20) | Post   | 17        | 19       | 49        | 39    | 51        |
|                        |         | Pre  | 48        | 51       | 12        | 42    | 4         |
| Satisfactory           | (11-15) | Post   | 2         | 2        | 3         | 12    | 19        |
|                        |         | Pre  | 30        | 29       | 33        | 26    | 44        |
| Needs Improvement      | (6-10)  | Post   | 0         | 0        | 0         | 0     | 0         |
|                        |         | Pre  | 2         | 2        | 35        | 16    | 36        |
| Poor                   | (0-5)   | Post   | 0         | 0        | 0         | 0     | 0         |
|                        |         | Pre  | 0         | 0        | 2         | 0     | 0         |
| Over-all Total Score   |         | Post   | 3,884     | 3,722    | 3,419     | 3,411 | 3,423     |
|                        |         | Pre  | 2,756     | 2,802    | 2,002     | 2,418 | 1,882     |
| Average Score (Male)   |         | Post   | 22.58     | 22.12    | 19.94     | 19.62 | 19.64     |
|                        |         | Pre  | 16.08     | 16.59    | 11.19     | 13.28 | 10.53     |
| Average Score (Female) |         | Post   | 22.21     | 21.15    | 19.81     | 20.04 | 20.16     |
|                        |         | Pre  | 16.08     | 15.99    | 12.10     | 14.85 | 11.35     |
| Over-all Average       |         | Post   | 22.40     | 21.64    | 19.88     | 19.83 | 19.90     |
|                        |         | Pre  | 16.025    | 16.29    | 11.64     | 14.06 | 10.94     |

The pre-test was administered by the teacher in order to determine the prior level of knowledge of students on the subject matter; this is done separately before the conduct of each activity-based learning modalities. Majority of the students obtained scores within the very satisfactory and satisfactory levels. Very few categorically fall under the excellent level. Also, a considerable number of students got the score under "Needs Improvement" especially in the talk show, musikahan and drama interventions or modalities. However, in the post-test conducted after the activity-based learning modalities, many of the students rose to the excellent level as evidenced by the increased of total scores of all respondents. Therefore, all interventions made by the teacher in presenting the lessons to the students were exceedingly effective. All have gained knowledge and skills noted in the increase of the scores of respondents from pre-test to post-test.

#### 5.2 Tests of Relationship between Teaching Modalities and the Post-Test Scores of Respondents

Table 2 presents the results of the tests of significant relationships between learning modalities and posttest scores of respondents in the different activity-based learning.

#### Table 2

Results of the test of relationship between learning modalities and post-test scores of respondents

| Activity-Based Learning<br>Modalities | Coefficient<br>r-value | Computed<br>t-value | Probability | Decision                            |
|---------------------------------------|------------------------|---------------------|-------------|-------------------------------------|
| Game Show                             | 0.8244                 | 7.3798              | 0.000       | Reject H <sub>o</sub>               |
| Quiz Bee                              | 0.5491                 | 8.5664              | 0.000       | $\operatorname{Reject} H_{_{\! 0}}$ |
| Talk Show                             | 0.3432                 | 12.2371             | 0.000       | $\operatorname{Reject} H_{_{\! 0}}$ |
| Drama                                 | 0.2934                 | 12.4646             | 0.000       | $\operatorname{Reject} H_{_{\! 0}}$ |
| Musikahan                             | 0.3218                 | 12.3449             | 0.000       | Reject H <sub>o</sub>               |

In terms of game show, the test yields a coefficient (r) value of 0.8244 signifying a very strong relationship between the learning modality and post-test scores of respondents. When the coefficient (r) was tested to determine the significant relationship, the test yields a t-value of 7.3798 with a probability of 0.000. This means that there is a significant relationship between game show as a teaching strategy. These findings imply that the high performance of the students in the post-test traceable to the appropriateness of the activity to the lessons prepared by the teacher.

On the other hand, when it comes to quiz bee, the test yields a coefficient value (r) of 0.5491 which implies a marked relationship between this activity-based learning process and the student's performance in the post-test. These marked relationships result in a t-value of 8.5664 which is greater than the critical t-value of 1.960. This implies that there is a significant relationship between quiz bee as activity-based learning and students' learning outcomes. Talk show, drama, and musikahan, all yields coefficient values of 0.3432, 0.2934 and 0.3218 respectively. They are regarded as slightly weak in terms of strengths of the relationships between the activity-based modalities of learning and students learning. However, when used to determine the significance of r-values, all come with 12.2371, 12.4646, and 12.3449 which are greater than the critical value of 1.960 at 0.05 level of significance. The result calls for the rejection of the null hypotheses. Therefore, there is significant relationships between talk how, drama and musikahan to the learning outcomes of the students. All those mentioned activity-based teaching-learning modalities are effective tools in as far as enhancing the performance of the students.

In summary, the activity-based teaching-learning modalities are all effective in enhancing the learning of the students. The interest of the students on the activities, eases to do away the boredom, motivate them to participate actively, encourage them to learn and provide them with enjoyment and enable them to accomplish the objectives of the lessons as being shown on their perceptions of every activity as the researcher also get the perceptions of the learners through the research instrument used that was patterned after that of the Philippine Australia Project on Education Teaching Strategies.

## **6** Conclusion

The respondents, who are subjected to activity-based teaching-learning modalities regarded game show, quiz bee, talk show, drama and musikahan as very satisfactory. They have the same level of perceptions on the activity-based teaching-learning modalities in lessons presentation. The activity-based teaching-learning modalities are acceptable to the taste of students as a mode of learning and teaching, and the methodologies

are influential factors on students' performance in Economics.

The pre-test and post-test results show significant differences. The level of knowledge about the lessons in the pre-test was on the needs improvement. The five (5) activity-based teaching-learning modalities are significantly related to the post-test scores of respondents.

Hence, teachers must appropriately select activity-based learning exercises that can evoke interest, enthusiasm, and encouragement to students' participation and they must learn to adopt varying strategies so that boredom among students can be eased out and prevented.

## **Conflict of Interests**

The author declares that there is no conflict of interests regarding the publication of this paper.

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