

Effectiveness of a Proposed Outcomes-Based Education Module in Teaching and Learning Economics

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Abstract— This study aims to determine the significance of a proposed outcomes-based education module in teaching and learning Economics to a selected Sophomore Bachelor of Secondary Education major in Social Studies students in the second semester of the S.Y. 2020-2021 at the College of Education in Universidad de Manila. The researchers will apply the Outcomes-Based Education module to teach and learn Economics to the selected students. The pre-test and post-test are used as research instruments to measure the students' prior knowledge. The new knowledge that the students will be able to demonstrate, apply, and analyze to real-life situations.

Keywords— Outcomes-based Education, Economics, Social Studies, Teaching and Learning, College, Module, Education

I. INTRODUCTION

Various curriculum-based educational tactics were adopted by the Philippines in the past to boost students' educational standing and aid instructors and students in learning effectively. Superior learning outcomes can be achieved through the development and achievement of high-quality education. For many years, the teaching method has been focused on the teacher, with the instructor serving as the primary source of knowledge and information. As time passes, teaching methods move towards student-centered methods, in which students become active participants rather than passive recipients of information.

Outcomes-based education (OBE) is a well-known educational trend because it was favored internationally and accredited by CHED (Commission on Higher Education) to develop competency-based standards that meet existing international standards when applied to integrating intellectual disciplines. Curriculum design and teaching focus on what students can do after they are taught rather than mere memorization of knowledge, to achieve planned learning outcomes. The desired learning outcomes can be achieved through the course content, learning activities, and assessments. The gathering of evidence is necessary to determine if the targeted results are being met (“CHED Handbook on Typology, Outcomes-Based Education and Inst’l Sustainability Assessment,” 2015).

This curriculum is supported by the OBTL (Outcomes Based Teaching and Learning) approach, which develops teaching and learning activities to support learning outcomes. On the other hand, it is a teaching

delivery system in which curriculum topics are expressed as outcomes that students are expected to learn (“Outcomes-Based Education vs. Outcomes-Based Teaching and Learning – Centre for Teaching and Learning,” 2023).

Three fundamental assumptions were presented by Dr. William Spady (1995), the father of OBE: all students have the potential to learn and succeed; success is contagious; and teaching institutions affect the conditions for success. In contrast to traditional educational planning, the OBE concentrates on the learning objectives of learners. In OBE, what the learners should learn is identified first, followed by how they will learn it. The evaluation and teaching methodologies will be based on the anticipated learning goals, as opposed to traditional planning, which identifies the lessons to be learned first and then the outcomes (Resources in Education, 1995).

OBE has numerous benefits, notably in terms of transformation. It promotes an education method, with a focus on the goal and emphasizes collaborative learning over competitiveness. Overseeing and evaluating progress should emphasize learning and achieving desired results, instead of focusing on curriculum content and grades. Individuals who manage and account for what happens must focus their efforts on learning and achieving desired outcomes instead of curriculum material and grade accomplishment. Increasing skills in establishing conditions that promote learning and the achievement of desired results is a must for learners, educators, and those who support learning.

The OBE states that success requires a commitment to continuous growth and improvement (SPADY, 1995).

The researchers' goal in this study is to determine the significance of the present Outcomes-Based Education curriculum in teaching and learning courses, notably social science, to provide a superior education in the country. The researchers will employ the Outcomes-Based Education module to teach and learn Economics to Sophomore Bachelor of Secondary Education major in Social Studies in the second semester of the school year 2020-2021 at the College of Education-Universidad de Manila, the researchers will use pre-test and post-test as research instruments to measure the students' prior knowledge as well as the new knowledge that the students will be able to demonstrate, apply, and analyze to real-life situations underlying the proposed intended learning outcomes and teaching and learning strategies from the adapted module of the research (Shuttleworth, 2018).

Statement of the problem

This study aims to determine the significance of the Outcomes Education Module in Teaching and Learning Economics to Sophomore College of Education Students majoring in Social Studies of S.Y. 2020-2021.

Specifically, it will seek to answer the following questions:

- 1) What is the result of the pre-test before using the Outcomes Based Education Module in Teaching and Learning Economics for Sophomore College of Education Students majoring in Social Studies of S.Y 2020-2021?
- 2) What is the result of the post-test after using the Outcomes Based Education Module in Teaching and Learning Economics for Sophomore College of Education Students majoring in Social Studies of S.Y 2020-2021?
- 3) Is there a significant difference between the result of the pre-test and post-test before and after using the Outcomes Based Education Module in Teaching and Learning Economics to College of Education Sophomore Students majoring in Social Studies of S.Y 2020-2021?
- 4) What is the effectiveness of the OBE module in teaching and learning Economics in terms of:
 - a) Design
 - b) Content
 - c) Readability

Hypothesis

HO. There is no significant difference between the result of pre-test and post-test before and after using the proposed OBE module in teaching and learning Economics.

II. METHODOLOGY

1. Research Design

This is a quasi-experimental method for research. The quasi-experimental approach is an experimental research technique. It is useful for measuring variables in both qualitative and quantitative experiments. These designs often allow the researcher to manipulate the variable while treating the conditions (Creswell, 2017).

2. Scope and Delimitation of the Study

The study is quasi-experimental research. It is focused on the knowledge of sophomore students majoring in Social Studies at the College of Education, Universidad De Manila with 30 correspondents selected through convenience sampling. The focus of this study will be on Unit One of the proposed OBE module, which is made up of three chapters that will be reviewed by the researchers before conducting the post-test. The proposed module is composed of 1 Unit (Microeconomics) with three chapters (Chapter 1-Economic concepts, Chapter 2-Linkage and Shortage, and Chapter 3-Needs and Wants). The module contains the following: learning outcome, teaching, and learning activities with the needed assessment task. Each of the respondents is given the same questionnaires to answer. Its main purpose is to enrich the knowledge and understanding of the students and teachers about outcomes-based education its implementation, use, and significance in learning different subjects.

The proposed module is limited only to 1 unit with 3 chapters (Chapter 1-Economic concepts, Chapter 2-Linkage and Shortage, and Chapter 3-Needs and Wants) because the researchers had only limited time in making this quasi-experimental research. The researchers will be using the book entitled *Ekonomiks Learning Module* (first edition 2015) written by Balitao ("Ekonomiks LM U1 - First Module in Economics," 2021).

3. Sampling Method & Research Participants

The research population will consist of selected students from the Universidad de Manila. It consists of 30 sophomore students in the College of Education majoring in Social Studies during the second semester of the S.Y. 2020-2021. The responders were a mix of

male and female pupils. All of these participants were chosen using convenience sampling.

4. Research Instrumentation

The researchers presented an OBE module to be used as instructional material in teaching and learning economics. The proposed module consists of one unit (Microeconomics) and three chapters (Chapter 1: Economic Concepts, Chapter 2: Linkage and Scarcity, and Chapter 3: Needs and Wants). The module includes learning outcomes, teaching and learning activities, and the required assessment test.

The researchers created a pre-test and post-test examination that students will complete before and after using the proposed outcomes-based education module, which will serve as the source of the questions in the examination. It consists of questions about OBE's usefulness in academics, attitudes, and instruction. It is face validated by Sir Alistair B. Selorio, a professor of developmental reading. The examination paper consists of 30 multiple-choice questions.

To describe the effectiveness of the OBE module, the researchers used a survey questionnaire from an eLearning website with three parts and an overall item count of 15. The effectiveness of the proposed outcomes-based module can be described in terms of content (5 items), design (5 items), and readability (5 items) as reported by the same respondents.

The Folstein Test is a tool for systematically and fully assessing one's mental state. The maximum score is thirty. This is practical to utilize repeatedly and consistently. (Monroe & Carter, 2012)

The questionnaire's items will be interpreted using the Likert scale. These comments were based on responses from Sophomore College of Education students majoring in Social Studies. In some cases, respondents were asked to judge the success of the proposed outcomes-based education module in teaching and learning Economics.

5. Statistical analysis

In this study, the researchers analyzed raw data using statistical equations.

Arithmetic Mean is chosen for this study as well as in various mathematical and statistical contexts. The dependent T-test is used when two samples are not independent or are reliant on one another (Allen, 2017).

$$\bar{x} = \frac{\sum x}{n}$$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{SD_1^2}{N_1} + \frac{SD_2^2}{N_2}}}$$

III. RESULTS AND DISCUSSION

Sub-problem no.1 Result of Pre-Test before using the proposed outcomes-based education module in teaching and learning Economics.

Table 1: No. of students and their raw scores in pre-test with the corresponding verbal interpretation.

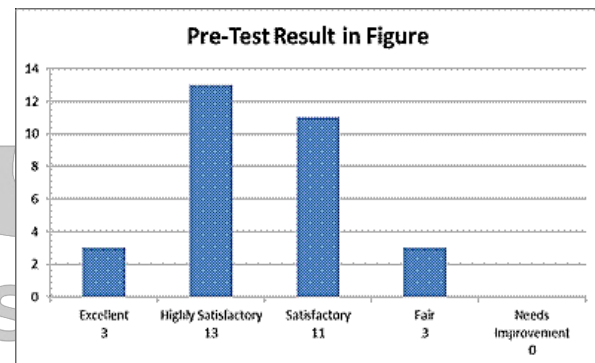
No. of Respondent	Raw Scores	Verbal Interpretation
1	25	Excellent
2	11	Fair
3	20	Highly Satisfactory
4	18	Satisfactory
5	25	Excellent
6	22	Highly Satisfactory
7	22	Highly Satisfactory
8	25	Excellent
9	20	Highly Satisfactory
10	18	Satisfactory
11	19	Highly Satisfactory
12	20	Highly Satisfactory
13	18	Satisfactory
14	15	Satisfactory

15	19	Highly Satisfactory
16	18	Satisfactory
17	21	Highly Satisfactory
18	10	Fair
19	18	Satisfactory
20	18	Satisfactory
21	19	Highly Satisfactory
22	15	Satisfactory
23	20	Highly Satisfactory
24	17	Satisfactory
25	20	Highly Satisfactory
26	14	Satisfactory
27	11	Fair
28	20	Highly Satisfactory
29	15	Satisfactory
30	20	Highly Satisfactory
Total	Total Raw Score:553	Arithmetic mean verbal interpretation: Satisfactory
No. of Respondents:30	Arithmetic Mean:18.433333	

Table 1 shows the results of the pre-test examination. During the Second Semester of S.Y. 2020-2021, the College of Education had 30 respondents in the Second Year Social Studies Major who provided their raw scores and verbal interpretations. The arithmetic mean of the pre-test scores is 18.43333 which has a verbal interpretation of Satisfactory. The respondents achieved an overall satisfactory score on a particular topic in the pre-test before using the proposed outcomes-based education module.

Figure 1. describes the frequency of scores wherein three respondents got the remark of excellent; thirteen (13) got highly satisfactory, eleven (11) is in the

satisfactory range, three(3) had a fair remark, while there is no respondent got the remark of Needs Improvement.



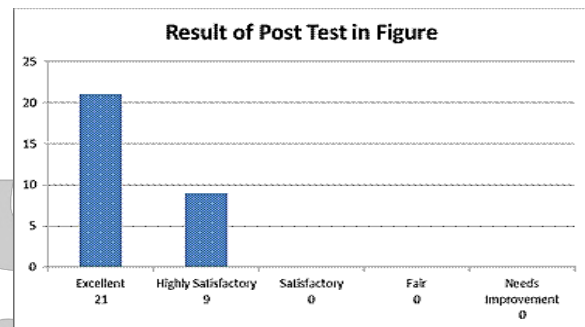
Sub- problem no.2 Results of Post-test after using the proposed outcomes-based education module in teaching and learning Economics.

Table 2: No. of students and their raw scores in post-test with the corresponding verbal interpretation.

No. of Respondent	Raw Scores	Verbal Interpretation
1	30	Excellent
2	20	Highly Satisfactory
3	26	Excellent
4	25	Excellent
5	30	Excellent
6	28	Excellent
7	26	Excellent
8	30	Excellent
9	26	Excellent
10	24	Highly Satisfactory
11	27	Excellent
12	29	Excellent

13	27	Excellent
14	29	Excellent
15	23	Highly Satisfactory
16	22	Highly Satisfactory
17	26	Excellent
18	26	Excellent
19	26	Excellent
20	28	Excellent
21	24	Highly Satisfactory
22	20	Highly Satisfactory
23	28	Excellent
24	24	Highly Satisfactory
25	25	Excellent
26	23	Highly Satisfactory
27	25	Excellent
28	27	Excellent
29	23	Highly Satisfactory
30	27	Excellent
Total No. of Respondents:30	Total Raw Scores: 774 Arithmetic Mean:25.8	Arithmetic mean verbal interpretation: Excellent

Table 2: The proposed outcomes-based education module for teaching and learning Economics was used, and Table 2 shows the results of post-tests. The raw scores in the post-test are described by verbal interpretation just like the pre-test scores. The arithmetic mean of the post-test result is 25.8, with a verbal interpretation of Excellence. Figure 2 describes the frequency of scores, where the majority of 21 out of 30 respondents received the 'excellence' remark, and nine received the 'highly satisfactory' range remark. Using the outcomes-based education module in Economics teaching and learning resulted in a sudden increase in respondents' scores.



Sub- problem no.3 What is the significant difference between the result of the pre-test and post-test before and after using the proposed outcomes-based education module in teaching and learning Economics?

Table 3: Arithmetic mean and variance of both pre-test and post-test scores

	Arithmetic Mean	Variance	Computed T-Value	Tabular Value	Significant or Not Significant	Decision
Pre-Test	18.433	11.94	12.09	2.045	Significant	Reject null hypothesis
Post-Test	25.8	7.27				

Table 3 presents the arithmetic mean and variance of both pre-test and post-test scores of the respondents. The computed t-value is 12.09 and its corresponding tabular

value is 2.045 which indicates that the proposed outcome-based education module is significant in teaching and learning Economics since the computed

value is higher than the tabulated value the researcher rejects the null hypothesis.

The data in this research prove that there is a high significance in using the proposed module. The pre-test arithmetic mean is 18.433 as satisfactory as the description with a variance of 11.94 while the post-test arithmetic mean is 25.8 and has a verbal interpretation of excellence with a variance of 7.27. In that sense, before using the proposed outcomes-based education module in teaching the respondents had a satisfactory

test result and after using it increased to an excellent test results. This supports the idea that there is a significant difference.

Sub-Problem No.4: How effective is the outcomes-based education module in teaching and learning Economics in terms of:

- A. Design
- B. Content
- C. Readability

Table 4: The effectiveness of the proposed outcomes-based education module in teaching and learning Economics as to design.

Design	Mean (WAM)	Verbal Interpretation (Description)	Extent of Effectiveness
1. The proposed OBE module in teaching and learning Economics introduce new concept with sufficient number of example for students.	3.5	Strongly Agree	Very Effective
2. The proposed OBE module in teaching and learning Economics , show illustration and picture that are appropriate to the level of the students.	3.56	Strongly Agree	Very Effective
3. The proposed OBE module in teaching and learning Economics has a well organized delivery of the contents.	3.56	Strongly Agree	Very Effective
4. The proposed OBE module in teaching and learning Economics allow the students to choose among number of different format.	3.63	Strongly Agree	Very Effective
5. The proposed OBE module in teaching and learning Economics creates effective visuals, analogies ,demonstration, and example to reinforce the main points.	3.5	Strongly Agree	Very Effective
TOTAL Weighted Arithmetic Mean:	3.55	Strongly Agree	Very Effective

a. Concerning the design of the proposed OBE module

The aggregate WAM of the five design items is 3.55, indicating that the proposed outcomes-based education module is highly effective in teaching and learning the subject.

b. Content of the proposed outcomes-based education module.

The overall statement is strongly agreed upon by respondents who have a total WAM of 3.50 for the 5 items and describe the level of effectiveness as highly effective. As a result, the content of the proposed outcomes-based education module is highly effective for teaching and learning Economics.

c. Regarding the readability of the proposed outcomes-based educational module

In terms of readability, the researchers received an overall WAM of 3.56, indicating that the respondents

clearly understood the written language, making the proposed outcomes-based education module very effective as an instructional resource.

IV. CONCLUSION AND RECOMMENDATION

Conclusion

Based on the summary of findings of the gathered data from the respondents, the following conclusions are drawn:

1. The respondents were Sophomore Social Studies Major at the College of Education during the second semester of S.Y 2020-2021 who had already taken up Economics and were assumed to have prior knowledge of the topics in the pretest.
2. Based on the findings there is a high significant difference between the results of pre-test and post before and after using the proposed Outcomes Based Education module in teaching and learning the subject.

- The study found out that there is significance in using the proposed outcomes-based education module in Teaching and Learning Economics because after using it as instructional material there is a sudden increase in the test results of the respondents.

Recommendations

The following recommendations are proposed based on the main findings and conclusions of this research.

- Students in the College of Education should attend lectures on OBE, including its goal, application, and how it might assist students in learning.
- Promoting the use of the proposed Outcomes Based Education module in Economics teaching and learning should be a priority for The College of Education.
- The teacher should apply the learning plan syllabus and weekly activity learning plan in teaching and learning Economics, as well as discover new ways and means to make the subject more engaging and fascinating to the students following 21st-century global teacher standards.

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