

Utilization of Self-Learning Module in the New Normal and Academic Achievement in Economics of Students in Public Secondary Schools

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Available online at: <http://www.ijcert.org>

Received: 27/05/2021,

Revised: 02/06/2021,

Accepted: 07/06/2021,

Published: 09/06/2021

Abstract: The present study focused on determining the usefulness of the utilized Self-Learning Modules (SLM) for teaching Economics in public secondary schools of Zone 4, Department of Education, Division of Zambales, Philippines during the remote/distance education. The grades in the 1st Quarter and 2nd Quarter (SY2020-2021) of Grade 9 students in Economics were secured. The Social Studies teachers were identified to assess the evidence of the usefulness of the components of an SLM.

The study utilized a descriptive experimental research design. Summative Tests and Evaluation checklist for Self-Learning Modules was utilized as a research instrument. Descriptive and inferential statistics were used for analysis of data.

The level of academic achievement before using the SLM in Economics was very 'Satisfactory' and 'Outstanding' after the utilization of SLM, hence the SLM was very useful and effective. It was found that the features/components for SLM for Economics in terms of Paper Design and Layout, Illustration and Printing, Contents, Presentation and Organization were Very Evident. The study revealed further that there is no significant difference between the first quarter achievement of students and the utilized SLM in Economics as evaluated by the teachers. There is no significant difference between the second quarter achievement of students and the utilized SLM in Economics as evaluated. There is no significant difference between the students' first quarter and second quarter's achievement in Economics. This study prepared an Enhanced Self-Learning Module in Economics based from the results of teachers' evaluation. The researchers recommend that the Social Studies teachers and Department Heads may prioritize the Content feature of SLMs in terms of creativity and innovation of presentation of topics/lessons.

Keywords: Utilization, Economics, Self-Learning Module, Academic Achievement, Public Schools, Division of Zambales

1. Introduction

Schools in many countries faced unprecedented challenges resulting from the COVID-19 virus pandemic at the beginning of 2020. Several countries have announced that (parts of) the formal education system will not re-open this academic year [1]. Home learning has emerged as a substitute to the conventional schooling methods with the

learning module, and on-line instructions predominate as alternative learning modalities. Modular instruction is more operative in the teaching-learning method than usual teaching approaches because, in this modular approach, the students learn at their stride [2]. It is unrestricted self-learning pace and style in which immediate reinforcement is provided to practice exercise, stimulating the students and building curiosity [3]. Typically, the modular approach helps

to maximize student involvement in the classroom in respect to accomplishing the given tasks at the spot.

Varieties of teaching methods will fixate on cumulating methods that can best realize the creative and constructive engagement with learning activities that leads to understanding [4]. Even very well-designed modules, with very well defined learning outcomes can fail if the edification strategies employed are infelicitous to inspire and support the learners towards meeting the desired learning outcomes. Recent [5] offers the definition: A teaching strategy is a learning plan, and it includes the presentations which the teacher might make, the exercises and learning activities designed for students, visual-aids which will be supplied or suggested for students to work with, in which they show off their growing understanding and capability will be collected.

Most students in Central Luzon prefer the use of modular learning. Based on the initial results of the enrollment survey conducted in Central Luzon as of July 2 reveal 41% of parents prefer the modular approach for their children this School Year 2020-2021 [2]. In response to this, the Department of Education (DepEd) offers Self-Learning Modules (SLMs) with the alternative learning delivery modalities to be offered for various kinds of learners across the Philippines [6]. The integration of SLMs with the choice learning delivery modalities can facilitate DepEd to ensure that all learners have access to quality basic education for the school year 2020-2021 with face-to-face categories still prohibited because of the public health state [2 and 7].

The study conducted by Llego [6] reported on the effectiveness of self-learning modules on achievement among secondary school students that the students treated with modular approach achieved higher mean scores than those students taught through the activity-oriented method. The study of Padmapriya [8] reveals the effectiveness of the self-instructional module on accomplishment among secondary school students. The directors should take necessary steps to convey special training for flexible learning to teachers in developing modular packages. Since [9] stressed that the modular approach helps maximize student participation in the classroom in respect to fulfilling the given tasks at the spot. So the students feel free to learn in their style.

Also known as learning by oneself, self-directed learning in its most significant sense refers to an individuals ability to taking the initiative to identify their own learning needs, their ability to determine their learning goals, their ability to define the sources they need to learn, their ability to choose/use appropriate learning strategies and evaluate learning outcomes with or without help from an outsider [9]. With regards to Modular Learning Approach, self-directed

learning is further developed among students. Self-directed learning is a process where individuals take [10 & 11].

Educators must also address issues regarding quality of learning material like learning modules to address the quality concern. With this, usability and effectiveness come after. Educational institutions in the country need to prioritize the quality of teachers learning modules, for this is the most preferred mean/way for continued education during the COVOD19 pandemic. The modular approach is a unique and challenging way of teaching during remote learning. Therefore teachers should be supported with enough knowledge and understanding of the elements, composition and standard requirements of the material and provided adequate training about how to strategize and implement a module in a classroom setting. The study to determine the effectiveness of the self-learning modules (SLM) in Social Studies, especially Economics of selected public schools in Zone IV, Division of Zambales during the school year 2020-2021, was conducted with this above discussions.

The findings in this study will be of great help for determining effectiveness (drawn from the results of the first quarter and second quarter academic performance) in Economics) of a certain approach implemented during remote/distance learning in the form of a self-learning module. Llego [6] pointed out that effective self-learning material and style is where an immediate reinforcement is provided to practice exercise, motivating the students and creating interest in them in a particular situation/condition. Self-learning modules will keep the students at their own pace and boosts their interest and confidence in learning amidst pandemic and remote/distance learning.

On the other hand, the Social Studies teachers will be more knowledgeable on how they can improve the self-learning modules' content, illustration and printing, paper design and layout, and presentation and organizations as this was also the main objective of the present study. The appropriate components, features and standards for self-learning modules for Social Studies Program which can be utilized effectively in the 'new normal' and in the next grading period has direct and positive affect to students scholastic progress. Moreover, the study results can help Schools' Curriculum Planners in enhancing/innovating curricular programs and alternative learning delivery modality vital for flexible learning during the time of distance learning and quarantines.

2. Objectives of the Study

This study investigated the usefulness of the utilized Self-Learning Module (LSM) for teaching Economics in public secondary schools of Zone 4, DepEd Division of

Zambales for the First and Second Quarter of the School Year 2020-2021. The study answered the following questions:

1. What is the level of Academic Achievement before (First Quarter) and after (Second Quarter) using Self-Learning Modules in Social Studies of selected public schools in Zone 4, Division of Zambales?
2. How may the perception of the teacher-respondents on the utilization of Self-Learning Module for Grade 9 students in terms of: (2.1) Content; (2.2) Illustration and Printing; (2.3) Paper Design and Layout; and (2.4) Presentation and Organizations?
3. Is there a significant relationship between students' First Quarter academic achievement and self-learning module in Economics?
4. Is there a significant relationship between students' Second Quarter academic achievement and the self-learning module Economics?
5. Is there a significant relationship between students' First Quarter and Second Quarter's academic achievement in Economics?
6. What can enhanced self-learning modules be developed based on the results of teachers' appraisal of the SLM?

3. Hypotheses

The following are hypotheses which were tested in this study.

1. There is no significant relationship between students' First Quarter academic achievement and self-learning module in Economics.
2. There is no significant relationship between students' Second Quarter academic achievement and the self-learning module Economics.
3. There is no significant relationship between students' First Quarter and Second Quarter's academic achievement in Economics.

4. Methodology

The present study utilized a descriptive, experimental research design. Descriptive research is concerned with conditions or relationships that exist, effects or trends that are developing, practices that prevail, and processes that are going on. According to Rowell et al. [12], the descriptive research method uses content analysis of documents and records and observations and interviews as the key instruments of the data collection. Brians [13] stated that in experimental research design, one or more independent variables are manipulated/applied to one or more dependent variables to measure their effect on the latter, to aid researchers in drawing a reasonable conclusion regarding the relationship between these 2 variable types. The present study was conducted in ten (10) selected public

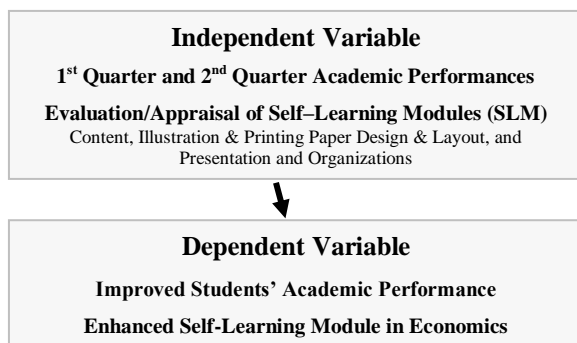
schools of Zone IV (Subic, San Marcelino and Castillejos Districts), DepEd Division of Zambales. A total of one hundred and three (103) Social Studies teachers were identified as evaluators of the SLM in Economics.

The Evaluation and Review Criteria Checklist for the Development of Self-Learning Module (SLM)' is composed of (a) Contents, (b) Format, Organization and Presentation, and (c) Usability were based and lifted from DepEd Order NO. 39, [14], DepEd Memo No. 018, [15], Department of Education -Schools Division Memorandum 240, [16] and Sinco [9]. This were used by the Social Studies teacher-evaluators to assess if the indicators are Very Evident or Not Evident in the developed SIM in Economics. The assessment instrument provided the information that determines the effectiveness of self-learning modules in terms of content, format, presentation and organization, accuracy, and up-to-date information.

The conduct of the study was approved by the Schools Division Superintendent, DepEd Division of Zambales. The researchers also secured the assistance of the Principals of selected secondary schools of Zone 4 to administer the evaluation checklist to the respondents and to request the grade point average of the students in the First Quarter and Second Quarter in Economics. These grades served as the academic performances of the one hundred and fifty (150) student-respondents. Before administering the evaluation checklist, the study's objectives were explained to the respondents, and their responses were treated confidentially. The researchers personally administered the survey immediately after the approval of the abovementioned requests. The findings of the evaluation checklist (quality standard set by the Department of Education) on the Content, Illustration and Printing, Paper Design and Layout, and Presentation and Organizations of the SLM became the basis for the development of enhanced Self-Learning Modules (SLM) in Economics in Secondary High School Level. All data obtained from the research instruments were analyzed, interpreted and discussed using statistical tools such as frequency distribution, percentage distribution, weighted mean, t-Test, and Pearson Correlation Coefficient.

The research paradigm illustrates the relationship of the Independent Variable and Dependent Variable (IV-DV) model (Fig. 1). This study is anchored on determining the usefulness of the utilized Self-Learning Modules (LSM) for teaching Economics and the academic performance of Grade 9 students.

Fig. 1. The Paradigm



The results of the 1st Quarter and 2nd Quarter Academic Performances and the evaluation of Self-Learning Modules (SLM) in Social Studies-Economics are variables in the first frame. Students' status/level of academic performance is dependent 1st Quarter grade point average (before the utilization of the LSM in Economics) and 2nd Quarter grade point average (after the utilization of the LSM in Economics).

The results of the evaluation of the usefulness of the SLM in terms of Content, Illustration & Printing, Paper Design & Layout, and Presentation and Organizations by the teacher-evaluators were used as the bases for the development of enhanced Self-Learning Module in Economics (second frame) for the next grading quarters.

5. Results and Discussion

1. Level of Academic Achievement before and after Using Self-Learning Modules (SLMs) in Social Studies-Economics

Table 1. Academic Achievement Before and After Using SLMs in Grade 9 students in Social Studies

Academic Achievement	Remarks	First Quarter		Second Quarter	
		f	%	f	%
90-100 (Outstanding)	Passed	49	32.67	68	45.33
85-89 (Very Satisfactory)	Passed	71	47.33	70	46.67
80-84 (Satisfactory)	Passed	25	16.67	12	8.00
75-79 (Fairly Satisfactory)	Passed	4	2.67	0	0.00
below 75 (Did not Meet Expectation)	Failed	1	0.67	0	0.00
Total		150	100.00	150	100.00
Mean		88.41(Very Satisfactory)		90.23 (Outstanding)	

As shown in Table 3, under the First Quarter Achievement of the Grade 9 students in Economics, one hundred and fifty (150) student-respondents, 71 (47.33%) gained a grade point of 85-89 with descriptive interpretation of Very Satisfactory; 49 (32.67%) gained a grade point of 90-100 with descriptive interpretation of Outstanding; and 25 (16.677%) gained a grade point of 80-84 with a descriptive interpretation of Satisfactory. The computed mean grade was 88.41 interpreted as Very Satisfactory. Before any teaching of the contents of the module, the performance of the students in their pre-test was Proficient or Very Satisfactory.

Under the Second Quarter Achievement of the Grade 9 students in Economics, of the 150 student-respondents, 70 (46.67%) gained a grade point of 85-89 with descriptive interpretation of Very Satisfactory; 68 (45.33%) gained a grade point of 90-100 with descriptive interpretation of Outstanding; 12 (8.0%) gained a grade point of 80-84 with a descriptive interpretation of Satisfactory. The computed mean grade was 90.23 interpreted as Outstanding. With the utilization of the self-learning module in Economics by the Grade 9 students during the remote/distance learning, the performance of the students in the Second Quarter improved from Very Satisfactory to Outstanding.

The result of the assessed performance of the students in Second Quarter was exemplary. This signifies that the students performed well and accomplished adequately their tasks and exercises contained in the SLM in Economics. Moreover, it was evident that the students understood the contents and evidently learned the subject/discipline Economics utilizing the material. Deliquiña & de Guzman [17] Stark & Freishtat [18] stated that the effectiveness of the testing process can be increased greatly through the use of instructional materials. The result supports the study of Selga [19] wherein the modular-based work text was effective in helping students improving academic achievements in s subject and for Richards [20], it is appropriate for the student's vocabulary level and performance. Based on the results of the study of Ambayon [21], the performance of the students in the experimental group had improved from poor to excellent achievement, hence, it is recommended that the module be used in similar contexts.

2. Evaluation/Appraisal of the Utilized Self-Learning Module (SLM) in Economics by Teachers

Table 2. Utilization of Self-Learning Modules in Economics for Grade 9 Students in terms of Content

Content	WM	QR	Rank
1. Content is suitable to the learners' level of development.	3.54	Very Evident	4
2. Material enhances creativity and innovation & communication and collaboration.	3.42	Very Evident	8
3. Materials contribute to the achievement of specific objectives.	3.55	Very Evident	2
4. The material provides for the development of higher cognitive skills.	3.55	Very Evident	2
5. Material is free of ideological, cultural, religious, racial, and gender biases and prejudices.	3.55	Very Evident	2
6. Material enhances the development of desirable values and traits.	3.47	Very Evident	7
7. Material has the potential to arouse interest in listening to the story telling.	3.49	Very Evident	6
8. Adequate warning/symbols and reminders are provided	3.53	Very Evident	5
Overall Weighted Mean	3.51	Very Evident	

In terms of the Content requirement/aspect of the Self-Learning Modules (SLMs) in Social Studies 9 – Economics, indicator 3, Materials contribute to the achievement of specific objectives; indicator 4, Material provides for the development of the higher cognitive skills; and indicator 5, Material is free of ideological, cultural, religious, racial, and gender biases and prejudices (WM=3.5, rank 2 respectively) were Very Evidently utilized by the teachers – respondents. Based from the appraisal of the Social Studies teachers, the content elements of a SLM were very evident primarily on its SLMs contribution to the achievement of specific objectives/learning competencies of Social Studies 9-Economics; its purpose of allowing the opportunity for the students to develop higher cognitive skills; and its contents which are free from ideological, cultural, religious, racial, and gender biases and prejudices.

Hughes [22] highly considered module contents as to topics, difficulty, usefulness, appropriateness etc. Selga [19] found that the module evaluated led to accomplishing the subject's basic goals and allows for the development of higher cognitive skills, well-organized and well-designed. In connection to this, according to Reyes & De Guia [23], learning is made easy through the utilization of a variety of instructional materials, hence, students are more likely to learn as they are motivated to acquire knowledge and skills. Sadiq & Zamir [24] revealed that if module is very highly acceptable, reliable, and usable in terms of contents and objectives/goals, it is also highly valid.

The indicator that obtained the least weighted mean was 2, Material enhances creativity and innovation & communication and collaboration (WM=3.42) interpreted as Very Evident. Although least from the rank, the teachers found that it was also very evident that the SLM has the potential to enhance creativity and innovation & communication and collaboration. An important module's key component should also include learning activities; and teaching methods and approaches that allows active learning and supports innovation [25]. According to Dejene [26], each unit or module is a measured part of an extended learning experience of students leading to a greater maturity on the part of the learners. The Overall Weighted Mean was 3.51 with a Qualitative Rating of Very Evident.

Table 3. Utilization of Self-Learning Modules in Economics for Grade 9 Students in terms of Illustration and Printing

Illustration and Printing	WM	QR	Rank
1. The size of the letter is appropriate to the intended user.	3.58	Very Evident	3.5
2. Spaces between letters and words facilitate reading.	3.62	Very Evident	2
3. The font is easy to read.	3.68	Very Evident	1
4. Printing is of good quality.	3.54	Very Evident	7
5. The illustration is simple and easily recognizable	3.52	Very Evident	8
6. Illustration clarifies and supplements the text	3.57	Very Evident	5
7. The illustration is realistic and uses appropriate colors	3.55	Very Evident	6
8. Illustration is attractive and appealing.	3.58	Very Evident	3.5
Overall Weighted Mean	3.58	Very Evident	

With regards to the Illustration and Printing feature of the Self-Learning Modules (SLMs) in Social Studies 9 – Economics, indicator 3, Font is easy to read (WM=3.68, rank 1st) and indicator 2, Spaces between letters and words facilitate reading (WM=3.62, rank 2nd) were utilized very evidently. The SLMs for Economics used a font which is easy to read by the users – the Grade 9 students and spaces used in the presentation of module texts/discussions and between letters allowed and facilitated reading, analysis and comprehension of lessons in Economics. Dejene [26] concluded that the modular approach to teaching enables the learner to control his/her learning and accepts greater responsibility for learning. Tan-Espinar & Ballado [27] supported a learning module that calls for a classroom environment in which students are actively engaged in knowledge construction. Rio [28] reported on the level of acceptability of learning material as perceived by the expert-

respondents in terms of objectives, contents, pre and post-test were very much accepted.

The indicators of Illustration and Printing which obtained the least weighted mean were indicator 4, Printing is of good quality (WM=3.54) interpreted as Very Evident and indicator 5, Illustration is simple and easily recognizable (WM=3.52) interpreted as Very Evident. Printing of the SLMs in Economics was of good quality, and illustrations/designs were simple and can easily be identified and engaging. These indicators were last from the rank, however still were assessed and perceived to be very evident. Rio [28] reported on the level of acceptability of learning material as perceived by the expert- respondents in terms of illustrations/photos and usefulness were very much accepted. The Overall Weighted Mean was 3.58 with Qualitative Rating of Very Evident.

Table 4. Utilization of Self-Learning Modules in Economics for Grade 9 Students in terms of Paper Design and Layout

Paper Design and Layout	WM	QR	Rank
1. Attractive and pleasing to look at	3.54	Very Evident	7
2. It does not distract the attention of the reader	3.56	Very Evident	5.5
3. The harmonious blending of elements	3.52	Very Evident	8
4. Paper used to contribute to easy reading	3.57	Very Evident	4
5. Durable binding to withstand frequent use	3.56	Very Evident	5.5
6. Easy to handle	3.72	Very Evident	1
7. Adequate illustrations in relation to text	3.61	Very Evident	2.5
8. Paper and binding is relatively light	3.61	Very Evident	2.5
Overall Weighted Mean	3.59	Very Evident	

On the Paper Design and Layout feature of the Self-Learning Modules (SLMs) in Social Studies 9 – Economics, indicator 6, easy to handle (WM=3.72, rank 1st) was very evidently utilized; and indicator 7, Adequate illustrations in relation to text; and indicator 8, paper and binding is relatively light (WM=3.61 rank 2.5th) were utilized very evidently respectively. The SLMs for Economics were very much utilized because the modules were easy to handle, bounded by well-used quality paper, and the contents gave enough illustrations in relation to Economics lessons/texts. These were observed very good characteristics of the SLMs in terms of its Paper Design and Layout. According to Wiley [29], learning materials used should consider appropriate and enough info-graphics, drawings, and images which can help understand further a certain topic within the learning material. While Bernardo [30] focused on individualized

learning, they should be designed and illustrated carefully to make sure that the learning exercise runs smoothly.

The indicators of Illustration and Printing which obtained the least weighted mean were indicator 1, attractive and pleasing to look at (WM=3.54) interpreted as Very Evident and indicator 3, harmonious blending of elements (WM=3.52) interpreted as Very Evident. Among the SLMs Paper Design and Layout indicators, its attractiveness and being pleasing to look at, and harmonious and or organized blending of elements were also very evident even these characteristics obtained the lowest weighted mean. According to Reyes & De Guia [23], the quality of the Module subject of evaluation should highly consider the format and aesthetic sense aimed to trigger interest and engagement. Timetabling and module structure were very much looked upon in the study of Rabaeh [25]. The Overall Weighted Mean was 3.59 with a Qualitative Rating of Very Evident.

Table 5. Utilization of Self-Learning Modules in Economics for Grade 9 Students in terms of Presentation and Organization

Presentation and Organization	WM	QR	Rank
1. Presentation is engaging, interesting, and understandable.	3.33	Very Evident	8
2. It engages and challenges children's critical thinking.	3.41	Very Evident	6
3. Sentences and paragraph structures are varied and exciting to the target learner.	3.46	Very Evident	4
4. Expand their expressive mother tongue and/or English language proficiency.	3.39	Very Evident	7
5. Inquiry & Play-Based Learning, Active learning uses real-life situations.	3.44	Very Evident	5
6. There is a logical and smooth flow of ideas.	3.60	Very Evident	1
7. Vocabulary level is adapted to target learner's possible experience and level of understanding.	3.49	Very Evident	3
8. The length of sentences is suited to the comprehension level of the target learner.	3.54	Very Evident	2
Overall Weighted Mean	3.46	Very Evident	

On the Social Studies 9-Economics Self-Learning Modules' (SLMs) Presentation and Organization feature, indicator 6, there is logical and smooth flow of ideas (WM=3.60) was rank 1st with qualitative rating of very evidently; and indicator 8, Length of sentences is suited to the comprehension level of the target learner (WM=3.54 rank 2nd) were utilized very evidently. The utilized SLMs for Economics as evaluated by the teachers evidently contain important requirements or features such as logical and smooth flow of topics, sub-topics, discussions and ideas, and

the extent and length of sentences suited to the level of comprehension of the Grade 9 students.

The teacher has a role in configuring the module in all stages, guiding and instructing the learners in to its contents, flow of discussions of lessons/topics [31]. Giving any support that helps further their level of comprehension and to overcome any difficulty they might face. Module strategy learning takes into consideration the individual differences among learners. For Cook, et al. [32], the modular approach should be widely used to various groups of students and with various appreciations and ability.

The indicators of Presentation and Organization which obtained the least weighted mean were indicator 4, expand their expressive mother tongue and/or English language proficiency (WM=3.39) interpreted as Very Evident and indicator 1, presentation is engaging, interesting, and understandable (WM=3.33) interpreted as Very Evident. Among the indicators of SLM, the need for the opportunity to express students' ideas and thoughts in their native tongue and to learn from this practice and the need for the SLMs in Economics to have presentations of topics and lessons which are engaging, interesting and understandable to students. Cheng & Abu Bakar [33] recommended the use of varieties of teaching strategies that consider students' learning ability, setting the learning environment conducive for engaging and meaningful learning. The Overall Weighted Mean was 3.46 with Qualitative Rating of Very Evident.

3. Pearson Correlation Coefficient to Test the Significance on the Relationship between Students' Academic Achievement and Self-Learning Modules as Evaluated by Teacher-Respondents

Table 6. Relationship between the Students' First/Second Quarter Achievements and the Utilized Self-Learning Modules

First Quarter Achievement	
Pearson Correlation	-0.066
Sig. (2-tailed)	0.516
N	100
Interpretation	Very low negative correlation
	Ho is accepted
	Not Significant
Second Quarter Achievement	
Pearson Correlation	-0.063
Sig. (2-tailed)	0.534
N	100
Interpretation	Very low negative correlation
	Ho is accepted
	Not Significant

Pearson Correlation Coefficient was used to determine the relationship between the Students' First Quarter Achievement and the Utilized Self-Learning Module and the Second Quarter Achievement and the Utilized Self-Learning Module.

Based from Table 6, the computer-generated sig value of 0.516 is higher than 0.05 alpha level of significance, therefore, the Null Hypothesis is accepted, hence there is no significant difference between the First Quarter Achievement of Grade 9 students and the utilized Self-Learning Modules in Economics as evaluated by teacher-respondents in terms of its Paper Design and Layout, Illustration and Printing, Contents, Presentation and Organization. This result suggests that there are other aspects (e.g., student-related factors, family issues, current health crisis, teacher-related factors, etc.) which can affect (negatively or positively) the academic performance of the students in Economics during distance learning. However, according to Salcedo [34], module evaluation is a key component of quality enhancement of learning materials and can also serve several key purposes such feedback mechanism and improvement (teachers and students). Southampton UCU [35] supported the opportunity of continuous improvement of the module's content to provide feedback to teachers on the quality of teaching.

As indicated in Table 6, the computer sig value of 0.534 is higher than 0.05 alpha level of significance, therefore, the Null Hypothesis is accepted, hence there is no significant difference between the Second Quarter Achievement of Grade 9 students and the utilized Self-Learning Modules in Economics as evaluated by teacher-respondents in terms of its Paper Design and Layout, Illustration and Printing, Contents, Presentation and Organization. This result suggests that there are other issues and reasons which can affect (negatively or positively) the academic performance of the students in Economics during distance learning. The study of Southampton UCU [35] revealed that evaluating a learning module will put the performance of the students and/or quality of the features of the learning material in place. Wiley [29] argued that continuous evaluation has some advantages to learners and teacher implementers. According to Wiley [29], one can respond to issues (e.g. students understanding and learning) and potentially solve small problems before they become large ones. Stark & Freishtat [18] claimed that it also sends a strong message about how teacher implementers want to work in partnership with their students.

4. Pearson Correlation Coefficient to Test the Significance on the Relationship between Students' First Quarter and Second Quarter's Achievement in Economic

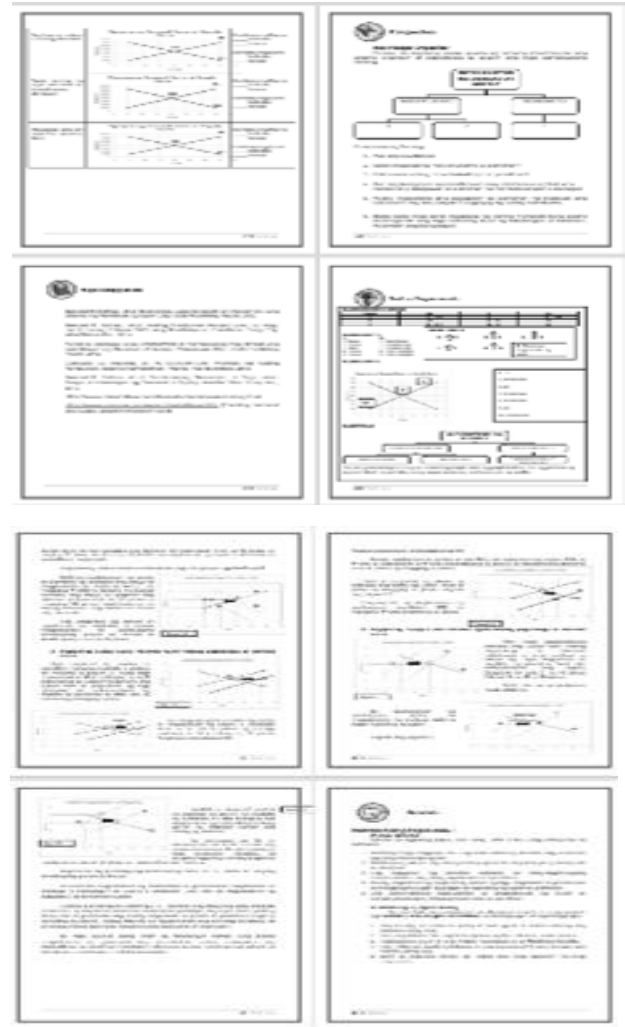
Table 7. Relationship between Students' First Quarter and Second Quarter's Achievements in Economic

Pearson Correlation	-0.066
Sig. (2-tailed)	0.516
N	100
Interpretation	Very low negative correlation
	Ho is accepted
	Not Significant

Pearson Correlation Coefficient was used to determine the relationship between the Students' academic achievement in First Quarter and Second Quarter in Economic. The computer generated sig value of 0.516 is higher than 0.05 alpha level of significance, therefore, the Null Hypothesis is accepted, hence there is no significant difference between the Grade 9 students' First Quarter and Second Quarter's Achievement in Economics.

There is no significant relationship between the Grade 9 students' First Quarter and Second Quarter's Achievement of the students in Economics. This result suggests that there are other aspects and factors (e.g., students' interest in Social Studies, learning styles and emotions, family or parents' issues, economic issues other socio-cultural issues, current health situation, other teachers' capabilities and preparedness, etc.) which can affect (negatively or positively) the academic performance of the students in Economics during distance learning in the pandemic time. Stark & Freishtat [18] pointed out to explore more general issues to get a 'feel' for how the module is being received by the students, the users and to explore more specific issues on module utilization quality and effectiveness to be addressed.

5. Developed Enhanced Self-Learning Module in Economics based on the results of Social Studies Teachers' appraisal of the SLM in terms of its content, illustration and printing, paper design and layout, and presentation and organizations (sample entries)



6. Conclusion and Future Scope

In light of the outcomes from statistical analysis and findings of the study, succeeding conclusions were drawn.

1. The level of academic achievement before using Self-Learning Modules in Economics was very Satisfactory and Outstanding after the utilization of SLM.
2. The features for Self-Learning Modules for Economics in terms of Paper Design and Layout, Illustration and Printing, Contents, Presentation and Organization were Very Evident. The teacher evaluators found that the SLMs in Economics were easy to handle, with adequate illustrations in relation to Economic topics/discussions/texts, and the SLM is well-bounded. The font used in the SLM is easy to read, and the spaces between letters and words facilitate reading. The contents of the SLM in Economics contribute to the achievement of specific objectives, for the development of students' higher cognitive skills, and teaching of

social responsiveness and respect of cultural differences and diversities. The presentation of the topics and ideas are smooth and logical, the length of sentences is suited to the comprehension level of the learners.

3. There is no significant difference between the First Quarter Achievement of students and the utilized Self-Learning Modules in Economics as evaluated by teacher-respondents.
4. There is no significant difference between the Second Quarter Achievement of students and the utilized Self-Learning Modules in Economics as evaluated by teacher-respondents.
5. There is no significant difference between the First Quarter and Second Quarter's Achievement in Economics.
6. An Enhanced Self-Learning Module in Economics was developed by the researchers based on the results of the teachers' appraisal using Evaluation and Review Criteria Checklist for learning module.

In the light of above conclusions, the following recommendations were made:

1. In improving the Content feature of SLM in Economics, teachers may enhance its creativeness of presenting topics/lessons; allows the opportunity for students to communicate and collaborate with one another; and towards the development of desirable values and appreciation.
2. The Social Studies teachers may consider in the next preparation of the SLM the quality of supplies/papers to be used; the use of recognizable illustrations; the attractiveness and harmony of the elements of the learning material.
3. The teachers may consider in the next set of production of SLM in Economics the aspect of presentation and organization specifically having more lessons which are engaging, interesting, and understandable to the students; and the utilization of Mother Tongue and/or English language in expressing ideas and thoughts.
4. Propose to the School Heads/Principals and Education Specialist/Curriculum Planners of the Division of Zambales the usage of the Enhanced SLM in Economics in the next quarter grading period.
5. For validation of the findings of the present study, further research may be conducted to include other Public High School in the whole Division of Zambales.

7. Acknowledgment

The researchers wholeheartedly thank the PRMSU Graduate School and University Research and Development Unit's leadership for their valuable assistance and support in this research article's publication.

References

- [1] United Nations Educational, Scientific and Cultural Organization, "COVID-19 Webinar: A new world for teachers, education's frontline workers", 2020
- [2] Department of Education, "Self-Learning Modules for Education's New Normal", Press Release. July 1, 2020
- [3] N.H. Dizon, M.F.D. de Guzman, L.F. Uy, & A.R. Ganaden, "Education Concerns in Public Secondary Schools of Division of Zambales, Philippines: An Education Response to COVID 19 Pandemic of 2020", *EAS Journal of Humanities and Cultural Studies- Volume-3 | Issue-2| April-March 2021*.
- [4] Ministry of Education, "A revised guide line for curriculum modularization in Ethiopian higher education institutions," Addis Ababa, Ethiopia (May 2015).
- [5] C. N. Recent, "Development of Instructional Materials for the Enhancement of the Listening Skills among Freshmen College Students of SMCL", PNU. 2011.
- [6] M. Llego, "Deped Self-Learning Modules (SLM) for School Year 2020-2021", 2020
- [7] R.C. Dizon Jr, M.F.D. de Guzman & N.B.A. Orge, "Training Needs on Learning Delivery Modalities of Senior High School Teachers of Zambales, Philippines: Response to the Changes in the Basic Education during the Pandemic," *EAS Journal of Humanities and Cultural Studies*, ISSN: 2663-0958 (Print) & ISSN: 2663-6743 (Online) Volume-3 | Issue-1| Jan-Feb 2021
- [8] P. V. Padmapriya, "Effectiveness of self-learning modules on achievement in Biology among secondary school students", *International Journal of Education and Psychological Research (IJEPR)*, 2015
- [9] M. Sinco, "Strategic intervention materials: A tool in improving students' academic performance", *International Journal for Research in Applied and Natural Science*, 2020
- [10] K. Grover, "Online social networks and the self-directed learning experience during a health crisis", *Int. J. Self-Direct. Learn.* 12, 1-15, 2015
- [11] N. R., Boyer, & P. Usinger, "Tracking pathways to success: triangulating learning success factors", *Int. J. Self-Directed Learn.* 12, 22-48, 2015
- [12] L. Rowell, E. Polish, M. Riel, & A. Brewer, "Action researchers' perspectives about the distinguishing characteristics of action research: a Delphi and learning circles mixed-methods study", 2015
- [13] C. L. Brians, "Empirical Political Analysis: Quantitative and Qualitative Research Methods", 8th ed. Boston, MA: Longman, 2017.
- [14] Department of Education Order No. 39, "Policy Guidelines on Addressing Learning Gaps and Implementing a Reading and Writing Program in Secondary Schools Effective School Year (SY) 2012-2013" 2012
- [15] Department of Education Memo No. 018, "Policy Guidelines for the Provision of Learning Resources in the Implementation of the Basic Education Learning Continuity Plan. Department of Education, Philippines", 2020
- [16] Department of Education Schools Division Memorandum No. 240, "Submission of Teacher Developed Print and Non-Print Materials for the Learning Resources (LR) Festival", 2016.
- [17] M.J. Deliquiña, & M.F.D. de Guzman, "Differentiated Instructions in the Kio12 Social Studies Program and Students' Academic Performance", *American Journal of Humanities and Social Sciences Research*, Volume-5, Issue-4, pp-474-481, 2021
- [18] P. Stark, & R. Freishtat, "An evaluation of course evaluations. ScienceOpen Research", 2014

- [19] M. C. R. Selga, "Instructional materials development: A Work text in Science, Technology and Society", LCCB Development Education Journal of Multidisciplinary Research, 2(1), 1-1., 2013
- [20] J. Richards, "Advantages and disadvantages of using instructional materials in teaching ESL", 2013
- [21] C.M. Ambayon, "Modular-Based Approach and Students' Achievement in Literature", *International Journal of Education & Literacy Studies* ISSN: 2202-9478, 2020
- [22] J. L. Hughes, "Programmed Instruction for Schools and Industry", Chicago: Research Association, Inc. 2012.
- [23] Y. D. Reyes, & R. G. De Guia, "Development of English Work Text in English 101", *International Journal of Science and Research (IJSR)*, 2017
- [24] S. Sadiq, & S. Zamir, "Effectiveness of Modular Approach in Teaching at University Level", *Journal of Education and Practice*, 5(17), 104, 2014
- [25] M.H. Rabaeh, "The effectiveness of the modules strategy based on perfection and research in gaining the chemical concepts for the students of the 10th grade in Jordan", Ph.D Thesis Amman Arab University for Higher Studies, 2012
- [26] W. Dejene, "The practice of modularized curriculum in higher education institution: Active learning and continuous assessment in focus", *Cogent Education* 6: 1611052, 2019
- [27] M. J. F. Tan-Espinar & R. S. Ballado, "Content Validity and Acceptability of a Developed Worktext in Basic Mathematics 2. Asia Pacific Journal of Multidisciplinary," 2017
- [28] L.C. Rio, "Development and Acceptability of Training Module in Switching Logic," *International Journal of Scientific and Research Publications*, Volume 4, Issue 10, October 2014 1 ISSN 2250-3153, 2014
- [29] C., Wiley, "Standardized module evaluation surveys in UK higher education: Establishing students' perspectives", *Studies in Educational Evaluation*, 61(1), pp. 55-65, 2019
- [30] J. Bernardo, "Modular Learning most preferred parents: DepEd", ABS-CBN News, 2020
- [31] D. Cook, M. J. Blachman, D.W. Price, C.P. West, R.A. Berger, & C.M. Wittich, "Professional development perceptions and practices among U.S. physicians: a cross-specialty national survey," *Acad. Med.* 92, 1335-1345, 2017
- [32] M. T. Quinones, "DepEd clarifies blended, distance learning modalities for SY 2020- 2021", *Philippine Information Agency*, 2020
- [33] C. M Cheng, & M. B. Abu Bakar, "The Impact of Using Modules in the Teaching and Learning of English in Malaysian Polytechnics: An Analysis of the Views and Perceptions of English Language Teaching, Pendidikan, Malaysia", 2017
- [34] J.R.E.E. Salcedo, "Acceptability of a Developed Teaching Module on Selected Writings of Jose Rizal", *SAJST*, Volume 1, Issue 1, 2016 P-ISSN: 2672-2984 E-ISSN: 2672-2992, 2017
- [35] Southampton UCU, "Module Evaluations and Simply Better", 2019

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