Effectiveness of the teacher-made strategic intervention material in increasing the performance level of grade 11 home economics students

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Abstract - The K to 12 programs of the Philippine Basic Education aims to broaden the goals of high school education for college preparation, vocational and technical career opportunities, creative sports, and entrepreneurial employment in a rapidly changing and increasingly globalized environment. Hence, the teachers being the front liners in the academe are tasked to fully give their best in fulfilling the aims and goals of the education sector.

This action research aims to determine the effectiveness of the Teacher-Made Strategic Intervention Material in Increasing the Performance of Grade 11 Home Economics Students of Holy Spirit National High School. The study made use of a quasi-experimental design to test the effectiveness of the strategic intervention material (SIM) used to Grade 11 Home Economics after conducting the pre-test and post-test.

There were 27 Grade 11 Home Economics students used as participants. Mean and T-test were used as tools in the analysis of data. The results revealed that Grade 11 Home Economics students performed better after employing them strategic intervention material in their lessons. They achieved a better mean gain score. This means that the use of strategic intervention material (SIM) has significantly improved the performance of the students. The results suggest that teachers in the senior high school should employ SIM in their daily lesson so students can better understand the lesson well. So, it can be concluded that the performance of the Grade 11 Home Economics students was greatly enhanced after SIM was employed in the lesson. Furthermore, it was recommended that senior high school teachers may adopt SIM in their lessons to address student’s needs.

Keywords: Strategic Intervention Materials, Effectiveness, Home Economics, Academic Performance, Education

1. Introduction/Context and Rationale

Holy Spirit National High has started operating senior high school in June 2017. It offers Academic strands such as STEM, ABM, and HUMSS track, and Technology and Vocational (TECHVOC) strand with Information and Communications Technology (ICT) and Home Economics (HE) track. Based on the record from the school’s registrar, some of the students who enrolled in the Home Economics strand were low performing when they were in junior high school, but they have the skills required in the TechVoc strand. This proved through data obtained from their Form 138 (Report Card) in their performance in junior high school.

Furthermore, most of them do not perform well in their academic subjects like in Understanding Culture, Society, and Politics. However, in the interview made by the researcher with the Home Economics Teachers, these students performed better in their HE classes like in Baking and Cooking. However, it is a common observation that learning Understanding Culture, Society, and Politics (UCSP) in Grade 11 Home Economics (HE) Strand is very difficult for them. 20 out of 27 Grade 11 HE students did not meet the passing score in their examinations. It is shown in their performance in the previous
quarter (Midterm). 76% of them failed in the subject. Though some of them perform better, it is very evident that some of them were left behind during the class discussion.

In this regard, various interventions and strategies have been employed in my classes to know the underlying causes of the poor performance of Grade 11 HE students. The researcher thinks that Strategic Intervention Material (SIM) is one of the interventions that might be effective in increasing the academic performance of the students in my class. Thus, to alleviate and help the goal of education in promoting quality education for all, the researcher made a teacher-made Strategic Intervention Material (SIM) in Understanding Culture, Society, and Politics for Senior High School students.

Long before the advent of the K to 12 Basic Education Program, intervention materials are highly regarded as tools for remediating poor achievements of the learners. Thereafter, Strategic Intervention Materials or SIM was introduced into the teaching methods to stimulate the activity of the students and thereby increase their level of understanding. As stipulated in the DepEd Order No. 39, s. 2012, interventions must be made to address the learning gaps. The use of SIM is identified as the best remediation to help increase the academic performance of the students. SIM is made as a remediation for the students to understand the specific lesson and thereby increasing their academic achievement.

Many studies have proven the effectiveness of Strategic Intervention Material in increasing the performance of the students in their academics. Villonez (2018) employed SIM in his Science class and found the effectivity of SIM in improving the academic performance of Grade 7 in Science. Thus, he used SIM in all his classes after conducting action research to a certain section in one of the Science classes he is handling.

Though SIM is commonly used in Science, the researcher would like to implement and use this in the Senior High School particularly to a core subject like Understanding Culture, Society, and Politics. In junior High School, this is like Araling Panlipunan subject. Furthermore, SIM will promote autonomous learning and memory enhancement among learners to better their performance in understanding many complicated concepts in this subject.

SIM is effective not only in increasing the performance of elementary students but also in high school. Salviejo, et.al (2014) surveyed the effectivity of SIM-BI in terms of improving the performance of high school students in Chemistry in Metro Manila. They found the positive result of the survey and suggested that the SIM was appreciated and appealed to any types of learners.

In like manner, the researcher would like to use teacher-made Strategic Intervention Material (SIM) in his classes to test its effectiveness in increasing the performance level of Grade 11 HE senior high school students.

2. Statement of the Problem

This paper aimed to find out whether the SIM (Strategic Intervention Material) would improve the academic performance of Grade 11 Home Economics students on the topic “Forms of Government.” Particularly, it sought to answer the following questions:

1. What is the performance level of the Grade 11 Home Economics students in the pre-test and post-test?

2. Is there a significant difference in the performance level of Grade 11 Home Economics students in the pre-test and post-test?
3. Scope and Delimitation

This action research is intended to determine the effectiveness of the teacher-made strategic intervention material in increasing the academic performance of Grade 11 Home Economics students in their Understanding Culture, Society and Politics subject. This study was conducted in the first semester of the school year 2019-2020 at Holy Spirit National High School in Quezon City. The participants of this study were the 27 students (15 males and 12 females) of Grade 11 Home Economics strand. These students took the pre-test before the SIM was employed to them. Then they took the SIM lesson as an intervention material to improve their academic performance in Understanding Culture, Society and Politics.

The results of the pre-test and post-test were subjected to mean and t-test to determine the effectiveness of the teacher-made strategic intervention material.

4. Research Methodology

A. Participants

There were 27 students (15 males and 12 females) of Grade 11 Home Economics for the School Year 2019-2020 who were identified as participants of the study. The researcher employed purposive sampling method because of their results during the midterm examinations. Almost all of them got a low score in the test that is why the researcher took all of them as participants of the study. They have undergone pretest and post test after employing the intervention material (SIM).

B. Data Gathering Methods

This study made use of a quasi-experimental design to test the effectiveness of the intervention material (SIM) used to Grade 11 Home Economics after conducting the pre-test and post-test. It is good design when you have access to one group for your experiment (Vockel, 1983). The researcher used this design because the participants are intact to one group of Home Economics students at Holy Spirit National High School in the Senior High School.

Moreover, the researcher utilized questions that cover the topic on Forms of Government as part of the coverage in the midterm. The test questions were checked and validated by the Master Teachers in the Junior and Senior High School and the Department Head. There were 15-item test questions (pre-test and post-test) given to the participants to check the effectiveness of the intervention material. The pre-test was given before the treatment and the post-test was given to test its effects of the intervention material.

C. Data Analysis

All data were collected and served as the basis to find out the effect of the Strategic Intervention Material in increasing the academic performance of Grade 11 Home Economics students in Understanding Culture, Society and Politics. Pre-test and Post-test were done before and after employing the intervention material. After which, data were tabulated, organized, and statistically treated and analyzed.

Mean and T-test was used in analyzing the results of the pre-test and post-test of the Grade 11 Home Economics students at Holy Spirit National High School. T-test was used to determine the significant difference of the Mean between the Pre-test and Post-test after employing the intervention material.
5. Summary of Findings

**Performance Level of the Grade 11 Home Economics Students in the Pre-test and Post-test**

Table 1 illustrates the data about the pre-test and post-test results of the Grade 11 Home Economics students before and after employing the Strategic Intervention Material in Understanding Culture, Society, and Politics.

It can be seen (Table 1) that the mean percentage score of the post-test got a remarkable increase after employing the Strategic Intervention Material in teaching Understanding Culture, Society and Politics from 62.20 as interpreted Average Mastery (AM) in the pre-test to 79.53 as interpreted Moving Towards Mastery (MTM). Post-test indicated that Grade 11 Home Economics students who were taught with the material (SIM) had significantly better retention of facts and concepts. Thus, they gained Moving Towards Mastery (MTM) level with an MPS of 79.53.

The results indicate that Grade 11 Home Economics students struggle in understanding the concepts in UCSP as shown in their pre-test mean score (9.33). Fundamental skills and knowledge have not been developed to gain understanding. On the other hand, results in the post-test showed a remarkable performance with a mean score of 11.93. Findings suggested that Grade 11 Home Economics students have a better performance after employing the SIM. There was an increase in their mean score. This also showed that the use of SIM in their classes increases the students’ performance significantly higher than before the SIM was employed. SIM influence the students to perform better in their classes.

Generally, the use of Strategic Intervention Material (SIM) had a positive effect on the learning of the Grade 11 Home Economics students.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Results of the Pre-test and Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Test</strong></td>
<td><strong>Verbal Interpretation</strong></td>
</tr>
<tr>
<td>Mean</td>
<td>MPS</td>
</tr>
<tr>
<td>9.33</td>
<td>62.20</td>
</tr>
</tbody>
</table>

**Legend:**

<table>
<thead>
<tr>
<th>MPS</th>
<th>Descriptive Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>96-100%</td>
<td>Mastered (M)</td>
</tr>
<tr>
<td>86-95%</td>
<td>CloselyApproximatingMastery (CAM)</td>
</tr>
<tr>
<td>66-85%</td>
<td>Moving Towards Mastery (MTM)</td>
</tr>
<tr>
<td>35-65%</td>
<td>Average Mastery (AM)</td>
</tr>
<tr>
<td>15-34%</td>
<td>Low Mastery (LM)</td>
</tr>
<tr>
<td>5-14%</td>
<td>Very Low Mastery (VLM)</td>
</tr>
<tr>
<td>0-4%</td>
<td>Absolutely No Mastery (ANM)</td>
</tr>
</tbody>
</table>
Test of Significant Difference in the Performance Level of Grade 11 Home Economics Students in the Pre-test and Post-test

Table 2 showed a significant difference between the pre-test and post-test mean scores after employing the Strategic Intervention Material in teaching Understanding Culture, Society and Politics. The results revealed that the computed t-value of 7.220 with the degree of freedom of 26 is higher than the p-value of .001 with .05 level of significance. Therefore, reject the null hypothesis. There is a significant difference between the pre-test and post-test mean scores of the Grade-11 Home Economics students after employing the Strategic Intervention Material. Further, the exposure of the Grade 11 Home Economics students by the Strategic Intervention Material had helped them matter the lesson better. Moreover, this result supports the view the use of teaching strategy contributes to the highest academic achievement of the students.

It could also be gleaned in table 2 that students’ performance level in UCSP have considerable better performance. This means that students who undergone intervention program like the use of Strategic Intervention Material as a remediation class significantly better retention of facts and concepts and were superior in applying knowledge in UCSP.

Nevertheless, it can be noted that Strategic Intervention Material helped improve the performance of the students in learning the subject.

Table 2

<table>
<thead>
<tr>
<th>Computed t-Value</th>
<th>p-Value</th>
<th>df</th>
<th>Interpretation</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.220</td>
<td>.001</td>
<td>26</td>
<td>Significant</td>
<td>Reject Null Hypothesis</td>
</tr>
</tbody>
</table>

Conclusions

In the light of the findings for the study, the following conclusions were drawn:
1. Grade 11 Home Economics students performed better in the post-test after employing them Strategic Intervention Material in teaching Understanding Culture, Society and Politics for a competency.
2. Strategic Intervention Material can help improve the academic performance of the students. Incorporating SIM to the delivery of the lesson with the least mastery develops the retention and analytical skills of the students. This material helps them in the transfer of learning.
3. There is a significant increase in the mean scores between the pre-test and post-test of the students using the Strategic Intervention Material.

Recommendations

Considering the outcomes and conclusions of the study, the following are recommended:
1. Senior High School teachers especially Social Science teachers may use innovative techniques such as Strategic Intervention Material in their daily teaching to address student’s needs.
2. Teachers should encourage the preparation and use of the Strategic Intervention materials to students who are below the standard academic capabilities especially those who are at risk of dropping out due to academic difficulties.

3. In-service training and seminar-workshops intended for the development of Strategic Intervention Materials may be conducted in school and the division level among teachers.

4. Further study on the effectiveness of the Strategic Intervention Material should be conducted to enhance the quality teaching-learning process in Social Sciences.

6. Action Plan for Dissemination and Utilization

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Objectives</th>
<th>Activities</th>
<th>Resources Needed</th>
<th>Persons Involved</th>
<th>Expected Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>February – March 2020</td>
<td>Disseminate the results of my research and Orient SHS teachers on the importance of using Strategic Intervention Material in the teaching-learning process.</td>
<td>LAC Session (4th Quarter)</td>
<td>Laptop PowerPoint</td>
<td>Researcher</td>
<td>Proper dissemination of the results of my research paper and well-oriented SHS teachers on the making of SIM.</td>
</tr>
<tr>
<td>June 2020</td>
<td>Present the steps/procedures for preparing the SIM.</td>
<td>Summer INSET (3rd week of June)</td>
<td>Laptop PowerPoint</td>
<td>Researcher</td>
<td>SHS teacher can make the SIM (per area of specialization)</td>
</tr>
<tr>
<td>July 2020</td>
<td>Assist SHS teachers in making SIM</td>
<td>Summer INSET</td>
<td></td>
<td>Researcher</td>
<td>SHS teachers submitted their SIM for validation</td>
</tr>
<tr>
<td>August 2020</td>
<td>Check and validate the SIM</td>
<td>LAC Session</td>
<td>Bond Papers</td>
<td>Researcher, SHS teachers</td>
<td>Well-validated SIM. Improved the content of the SIM.</td>
</tr>
<tr>
<td>September – November 2020</td>
<td>Pilot of SIM Employment of the SIM based on the least mastered skills</td>
<td>LAC Session</td>
<td>Strategic Intervention Material</td>
<td>Researcher, SHS Coordinator, SHS teachers</td>
<td>Revision (if necessary)</td>
</tr>
</tbody>
</table>
References


