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Strategic Intervention Material (SIM): Its Effectiveness in Teaching Beauty Nail Care Services

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ABSTRACT

The implementation of the Senior High School program has paved the way for the inclusion of technical and vocational education as one of the four (4) tracks offered from Grade 11 to Grade 12; specifically, the Technical-Vocational-Livelihood (TVL) track has gained traction as the shift from content-based to outcome-based learning has become a tagline in most, if not all, schools in the country. Home Economics is one of the TVL strands and Beauty Nail Care Services are part of its subject which students face a decrease in performance. This led the researcher to develop Strategic Intervention Material (SIM) in which this descriptive research was conducted to determine the extent to which good characteristics of a learning material was met as assessed by seven (7) experts; and its effectiveness in increasing the academic performance of thirty (30) purposively chosen HE students. Findings revealed that SIM “very highly” met the characteristics of a good learning material ($\bar{x}=4.551$, $sd=0.447$); the academic performance of those who utilized the SIM was “Very Satisfactory” ($\bar{x}=85$, $sd=0.802$); there was a significant difference in the academic performance of those who utilized the SIM and those who were not ($t=-2.030$, $p=0.047$); and SIM was “Effective” ($\bar{x}=2.772$, $sd=0.439$) in terms of Content, Clarity, Comprehensibility, and Usefulness. All supports and initiatives for utilizing this material was highly recommended. Results yield positive implications towards students’ skills in the said field, necessary for work immersion and TESDA assessment; and the HE curriculum being implemented in all senior high schools in the country.

INTRODUCTION

Technical-Vocational-Livelihood (TVL) programs have spread out vast and significant contributions to agriculture, infrastructure, machineries, transportation, fashion, food industry, and other fields; which make up country’s improved economy all over the world. These contributions moved educational leaders to craft and implement TVL curriculums for formal education; therefore, developing students to become skillful and job-ready.

In the Philippines, two of the initiatives of the Department of Education (DepEd) were the inclusion of the Technology and Livelihood Education (TLE) subject in the junior high school students; and the implementation of the senior high school curriculum having TVL track. This track has four (4) strands: Agri-Fishery Arts, Home Economics (HE), Information and Communication Technology (ICT), and Industrial Arts (Llego, 2023).

While the ICT and Industrial Arts strands focus on technology; the HE strand focuses on livelihood projects such as caregiving, cookery, bartending, baking, handicraft making, tourism, housekeeping, dressmaking, and such (College of Arts and Technology, 2023). One of the specialized subjects of this strand is the beauty/nail care in which according to the Canadian Centre for Occupational Health and Safety (2023); is associated with potential health and safety hazards such as biological (risk of exposure to blood and exposed fungal

infections), chemical (long and short-term exposure to high concentration of hazardous nail products such as polishes, strengtheners, removers, and artificial nail liquids), ergonomic (stress, fatigue, etc.), physical (noise), psychological (exposure to workplace violence), and safety (electrical, fire, slips, trips, and fall).

These can be avoided if students are well-educated and skilled through the subject. But in 2019, Aquino saw the problem of decreased class performance skills in Beauty Care (Nail Care Services); and this subject was considered as hard, rare, and difficult to find strategies and references. In Antipolo City Senior High School, similar problem is also being encountered every school year. This is an indication of also putting themselves (students) and their future customers to be at risks.

Therefore, the researcher as one of “Beauty Nail Care Services” subject teachers conducted this study to address such problems; by proposing an intervention based on the least mastered skills of his selected students for the School Year 2022-2023. Upon initial research, it was found that the least mastered skills for Grade 11/12 Beauty Nail Care Services, which many of the learners were having difficulties with were: (1) Determine and test the appropriate temperature for the heat tolerance of the client (8.474%, rank 23); (2) Advise client on another service on a maintenance program (29.944%, rank 22); (3) Apply hand softening product and massage according to the prescribed procedure (35.028%, rank 20); (4) Apply foot softening product and massage according

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to the prescribed procedure (34.746%, rank 21); and (5) Dispose of waste products according to OHSC and Department of Health requirements- 38.418% rank 19. Using the results as the main basis, the teacher-researcher deems that the use of Strategic Intervention Material (SIM) which focused on skills development to help students better understand the competencies where they needed improvement. This study was then conducted to determine : (1) how experts assessed the material in terms of Content, Learning Objectives, Mechanics, Language and Style, Organization of Ideas, Learning Assessment, and Functionality; (2) the academic performance of the students before and after SIM was utilized; (3) the significant difference in the performance of those who utilized the SIM and those who were not; and (4) how students assess the effectiveness of SIM in terms of Content, Clarity, Comprehensibility, and Usefulness. Results yield positive implications towards students' skills in the said field which are necessary for their upcoming work immersion and TESDA assessment; and the HE curriculum being implemented in his home school, and other senior high schools in the country.

LITERATURE REVIEW

The implementation of the Senior High School program has paved the way for the inclusion of technical and vocational education as one of the four (4) tracks offered from Grade 11 to Grade 12; specifically, the Technical-Vocational-Livelihood (TVL) track has gained traction as the shift from content-based to outcome-based learning has become a tagline in most, if not all, schools in the country. The TVL track provides students with subjects focused on job-ready skills as it offers practical knowledge and exposure to earn National Certificates (NCs), helping them land their desired job after graduating Senior High School (Jaca & Javines Jr., 2022).

Based on Spencer (2023), TVL track is a specialized education course developed by the Department of Education to strengthen and improve the skills of these students before their chosen career path; in which completion and certification of TVL courses can help them achieve eligible credentials for local and overseas job qualifications. Llego (2023) described its four (4) strands as follows:

Agricultural-Fishery Arts (AFA) Strand

This TVL component consists of specializations equivalent to qualifications under agriculture and fishery sectors. Students with agri-fishery arts specializations will be able to demonstrate necessary skills/competencies and values on the cultivation of plants and animal production to harvest food and other products using available technologies on farming and on raising, harvesting, and capturing fish and other aquatic resources. Schools that offer these specializations must have adequate facilities for students' laboratory classes.

Home Economics (HE) Strand

This TVL component consists of specializations

equivalent to qualifications under garments, tourism, health, processed food and beverages, and social and other community development service sectors. Students with home economics specializations will be able to demonstrate the necessary skills, competencies, and values in taking care of oneself and one's family, and in providing efficient services to others and to the community.

Industrial Arts (IA) Strand

This TVL component consists of specializations equivalent to qualifications under automotive and land transport, construction, electronics, furniture and fixture, metal and engineering, and utilities sectors. Students with industrial arts specializations will be able to demonstrate the skills, competencies, and values in providing repair and maintenance services, installation, manual craftsmanship, and machine safety using available industrial and engineering technologies.

Information and Communications Technology (ICT) Strand

This TVL component consists of specializations equivalent to qualifications under the information and communication technologies sector. Students with ICT specializations will be able to demonstrate the skills, competencies, and values in effective application, use, and management of technology in the context of system designing and customer service.

Among these TVL strands, Home Economics offers the only service which caters the needs for beauty and nail care. Beauty Care (Nail Care) Services in the Senior High School (SHS) leads to National Certificate Level II (NC II); and it covers four common competencies that a Grade 11/12 Home Economics (HE) student ought to possess, namely: 1) use of tools and equipment; 2) interpreting nail design; 3) practicing Occupational Health and Safety Procedures (OHSP); and 4) maintain tools, equipment and paraphernalia (Department of Education, 2019).

As it was just new in the basic education curriculum, though it was almost 8 years since K to 12 was implemented in the Philippines; its finest implementation was not yet achieved. Problems such as lack of instructional materials, learning materials, teachers' skills, and others; which has been yearly reflected in the students' performance in the beauty and nail care subjects; is challenging its implementation. When Ypanto (2022) studied how availability of materials, tools, and equipment impact students' competencies in nail care services; she recommended that beauty-nail care students' competencies can be improved through sufficient materials and equipment.

The researcher utilized previous results of the studies conducted about the performance of senior high school students in this subject which were learning resources-related. These were then used as basis in doing similar or relevant study to come up with solutions. Utilizing the students' performance in this subject which is currently and previously handled by the researcher is a good step to determine the intervention needed to address existing

problem. The development of the Strategic Intervention Material (SIM) was considered to be one; and this study will be conducted to determine its effectiveness in helping the learners increase in their performance.

MATERIALS AND METHODS

This is a combination of a descriptive and causal comparative research. Descriptive research was employed for describing the experts’ assessment of the SIM, the academic performance of the students before and after utilizing the SIM, and the students’ assessment of the effectiveness of the SIM. Causal comparative was fitted in determining the significant difference of performance of those who utilized the SIM and those who were not. An adapted survey questionnaire was administered among selected experts and students; and official records of students’ performance were acquired with permit. The seven (7) experts, thirty (30) students for the School Year

2023-2024, and twenty-nine (29) students for the School Year 2022-2023; were all purposively chosen for the study. Data were analysed using descriptive statistics such as mean and standard deviation; and inferential statistics through the use of t Test for significant difference. Statistical Packages for Social Sciences (SPSS) program was applied for the computation of data.

RESULTS AND DISCUSSION

The following were data obtained from the targeted respondents based on the four (4) specific objectives:

The Experts’ Assessment Towards Strategic Intervention Material (SIM)

The following data was a summary of the assessments administered to seven (7) experts in Beauty Nail Care Services and its curriculum:

As shown in Table 1, the component which obtained the

Table 1: The Extent that SIM Met the Characteristics of a Good Learning Material

Components	Mean (\bar{x})	Standard Deviation (sd)	Rank	Verbal Interpretation
Content	4.571	0.429	3.5	Very High
Learning Objectives	4.500	0.481	7	Very High
Mechanics	4.607	0.453	2	Very High
Language and Style	4.657	0.443	1	Very High
Organization of Ideas	4.571	0.554	3.5	Very High
Learning Assessment	4.543	0.500	8	Very High
Usability	4.595	0.418	6	Very High
Functionality	4.371	0.605	9	High
Overall	4.551	0.447		Very High

Legend:

4.500-5.000 *Very High*

2.500-2.499 *Neutral*

1.500-2.499 *Low*

3.500-4.499 *High*

1.000-1.499 *Very Low*

highest mean value of 4.657 with a standard deviation of 0.443 was Language and Style; and the lowest mean value of 4.371 with a standard deviation of 0.605 was obtained for Functionality. The overall computed mean value of 4.551 with a standard deviation of 0.447, indicates that the experts assess the extent to which SIM met the characteristics of a good learning materials was “Very High”. Except for Functionality, all the rest of the components were rated to be “Very High”. This means that SIM was very much ready for utilization as a learning material in Beauty Nail Care Services subject for Grade 11/12 students.

Also, the strength of the materials were the language and style used in presenting its content. Based on Sardana & Rathore (2022), using a language that the students know, helps amplify the learning process and makes it more effective for them to grasp the concepts that they need to learn. Other benefits of using language that students understand were increase of academic performance, improve of concentration, having more powerful memory, stronger communication skills, and more creativity (Spence, 2022). Therefore, it was good that SIM utilized language and style which can be easily understood by the students.

The Performance of the HE Students

The following data is the academic performance of the HE students based on their General Weighted Average (GWA) for the two (2) consecutive school years:

Table 2 shows that before the utilization of the Strategic

Table 2: Academic Performance Before and After Utilization of SIM

School Year (No. of Students)	Minimum Grade	Maximum Grade	Mean Grade	SD	Verbal Interpretation
S.Y. 2022-2023 (29)	72	95	81	7.03	Satisfactory
S.Y. 2023-2024 (30)	74	97	85	8.02	Very Satisfactory

Legend:

90-100 Outstanding

75-79 Fairly Satisfactory

85-89 Very Satisfactory

Below 75 Did Not Meet Expectation

80-84 Satisfactory

Intervention Material (SIM) during the School Year 2022-2023, the average grade of the students taking Beauty Nail Care Services subject was 81 (sd=7.03) which was described to be “Satisfactory”. When SIM was utilized for the School Year 2023-2024; there was a great increase in the students’ academic performance as it reached the “Very Satisfactory” rating ($\bar{x}=85, sd=8.02$). This means that students obtained scores in the quarterly examination which were almost close to the outstanding performance.

This was also an indication that learning was grasp and skills were already developed through the utilization of the material.

It was a good result because Aquino (2019) saw the problem of decreased class performance skills in Beauty Care (Nail Care Services); and this subject was considered as hard, rare, and difficult to find strategies and references. The development of SIM somehow helped in addressing the identified problems causing decrease in performance as it helped the students performed well in the subject.

The Comparison of the Academic Performances Before and After Utilizing SIM

The following data shows how students’ academic performances differ from each other depending on the material used in teaching them:

Table 3: Difference in the Academic Performance Before and After the Utilization of SIM

Group of Respondents	Mean Grade	Computed t-Value	Significance Value (2-tailed)	Verbal Interpretation
Before (S.Y. 2022-2023)	81	-2.030	0.047	Significant, Reject Null Hypothesis
After (S.Y. 2023-2024)	85			

The computed t-value of -2.030 with a significance value at 2-tailed of 0.047 (See Table 3), only proved that the performance of the students in which SIM was utilized was higher and significantly different from those who did not utilize the material. Therefore, the null hypothesis was rejected. Differences implied that SIM was an effective material in increasing students’ academic performance in Beauty Nail Care Services subject. Tongol et.al. (2022) also proved and said that using learning materials can help

improve students’ academic performance in many subject areas. Meaning, the contents of the material were understood and put into practice which became the students’ skills. As they learned the skills, knowledge was retained that helped them answered the questions in their examination.

HE Students’ Assessment of the Effectiveness of SIM

The following data shows how HE students assessed the effectiveness of the SIM:

Table 8: Summary of the Effectiveness of Strategic Intervention Material

Components	Mean (\bar{x})	Standard Deviation (sd)	Rank	Verbal Interpretation
Content	2.722	0.588	4	Effective
Clarity	2.778	0.542	3	Effective
Comprehensibility	2.789	0.396	2	Effective
Usefulness	2.800	0.558	1	Effective
Overall	2.772	0.439		Effective

Legend:

3.500-4.000 Strongly Agree (Very Effective)

1.500-2.499 Disagree (Ineffective)

2.500-2.499 Agree (Effective)

1.000-1.499 Strongly Disagree (Very Ineffective)

As summarized in Table 8, Usefulness obtained the highest mean value of 2.800 with a standard deviation of 0.558; while Content obtained the lowest mean value of 2.722 with a standard deviation of 0.588. The students who utilized SIM described the effectiveness of the material as “Effective” by the computed overall mean value of 2.772 with a standard deviation of 0.439. This means that, respondents were of fun of using the SIM because its contents were useful for them to learn the knowledge of skills of Beauty Nail Care Services. Though it was already effective for them in all its components,

improvements may still be undertaken to obtain or reach the highest level of effectiveness.

Improving its contents may help students more in terms of their academic. Learning materials are essential and significant tools needed for learning as these improve student’s performance; because when learners are presented with these learning tools and effectively used them, these are capable of captivating students’ interest, stimulate desires in learning and make them an active participant (Project House, 2023). Not only it is best for students. Learning materials also assist teachers in effectively implementing the curriculum and achieving educational objectives. In Beauty Nail Care Services subject, SIM is an effective material that students could explore on.

CONCLUSIONS

The salient findings of this basic action research, led the researcher to conclude that the Strategic Intervention Material (SIM) was so much ready for utilization in Beauty Nail Care Services subject of Home Economics (HE) students; as it met the good characteristics of a learning material in terms of Content, Learning Objectives, Mechanics, Language and Style, Organization of Ideas, Learning Assessment, Usability, and Functionality. The students who utilized the SIM had a “Very Satisfactory” performance indicating their mean score in quarterly examination in Beauty Nail Care Services subject was above average. This means that they obtained a passing score in the identified subject. The score of the students who utilized the SIM was higher and significantly different from the score of the students who did not use the SIM. Therefore, the null hypothesis stating no significant difference in the academic performance of the students before and after the utilization of the materials, was rejected. Lastly; the SIM was effective for the students who utilized this material which means that its content, clarity, comprehensibility, and usefulness were manifested and have been experienced by the students. These led the students to having an increase academic performance in the subject.

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