

# Conceptualizing and Learnability of Cookery Pocketbook as Learning Material Focuses on Sandwiches of Specialized Cookery in Grade Nine Students

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## Abstract

The purpose of this study is to improve learning abilities, and students' practical skills by evaluating the validation and acceptability of a researcher-created learning material that will assist in addressing a lack of learning materials in Cookery. The data were analyzed using descriptive statistics including mean, standard deviation and Pearson Product Moment Correlation (r) to test the significant relationship between the variables. Further, the combination of Research and Development and true experimental research design was used. Data collection involved 30 Grade 9 - Felicity students from Salabaca National High School through pretest and posttest using purposive sampling randomly. The degree of the acceptability of cookery pocketbook was used in the survey approach, and to determine its validity using the ratings of teachers. On the other hand, the result on the effect of the attributes to the students' performance was not significant in all practical skills. It was therefore concluded that the learning materials attributes have no significant effect on the students' performance in cookery, which indicates that the hypothesis was extremely acceptable. Furthermore, the learning attributes have no significant effect on the students' performance in cookery, which implies that the hypothesis was extremely acceptable. Based on the findings and conclusions, the researcher recommends that this further implies that the level of evaluation on learning material may not affect the students' performance in accomplishing their practical skills. Researchers may advocate for a centralized cookery pocketbook, while TLE teachers may create, modify, enhance instructional materials, and attend training for students' skill development.

**Keywords:** learning materials; practical skills; sandwiches; cookery; pocketbook; student performance; components; attributes

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## I. INTRODUCTION

Cookery is an important part of Technology and Livelihood Education in the K to 12 Basic Education system, helping students gain skills for a better life. Teachers are key in shaping students' knowledge and behaviors by providing a positive learning environment that fosters 21st-century skills. Effective teaching materials are crucial in actively engaging students in their learning process. Innovative teaching strategies that utilize

various resources such as modules, textbooks, and technology can enhance student engagement and understanding.

The rationale behind this study is rooted in the fact that there is currently a lack of cookery modules for Technology and Livelihood Education teachers at Salabaca National High School. To fill the research gap, the researcher created a cookery pocketbook aligned with the Department of Education's Most Essential Learning Competencies (MELCs) to help teachers

prepare lessons more efficiently and provide a better learning experience for students. The pocketbook offered structured, experiential learning opportunities.

Cookery is vital for life skills, including nutrition and cultural awareness, prompting schools to include culinary training. Practical tools and pocketbooks enhance student engagement and learning in home economics and specialized cookery (Cook & Lant, 2021; Thompson et al., 2019).

The Philippine Department of Education emphasizes practical skills in the K to 12 curriculum, incorporating specialized cookery like sandwich-making to enhance workforce readiness and foster interest in street food culture through hands-on learning (DepEd, 2020; Gonzalez, 2021).

In addition, the cookery pocketbook is compact instructional material consisting of planned learning experiences to help students master relevant learning objectives. It provides presented material based on the Most Essential Learning Competencies (MELCs). It features a user-friendly design that is small, anywhere and anytime.

Further, the study aims to evaluate the cookery pocketbook's validity and acceptability among students while contributing to the development of new instructional materials that meet their needs. The pocketbook featured competencies, self-paced lessons, and assessments with the Most Essential Learning Competencies (MELCs) to enhance students' knowledge, values, and skills.

### Statement of the Problem

The primary purpose of this study is to evaluate the validity and acceptability of the developed cookery pocketbook as a learning material designed to help teachers create interactive and engaging lesson activities. This resource aims to enhance students' engagement with practical skills in Specialized Cookery among Grade 9 students at Salabaca National High School during the 2024-2025 school year.

Specifically, it seeks to answer the following questions:

1. What is the level of acceptability of the cookery pocketbook as a learning material in Cookery, as perceived by Master Teachers and Technology and Livelihood Education (TLE) Teachers, in terms of:

- 1.1 objectives;
- 1.2 contents;
- 1.3 organization;
- 1.4 presentation; and
- 1.5 assessment?

2. What is the level of cookery pocketbook as learning material attributes in Cookery in terms of:

- 2.1 usability;
- 2.2 consistency;
- 2.3 adaptability;
- 2.4 self-instructional; and
- 2.5 aesthetic values?

3. What is the level of student's proficiency in practical skills in terms of:

- 3.1 Perform Mise' en Place;
- 3.2 Prepare a Variety of Sandwiches;
- 3.3 Present a Variety of Sandwiches; and
- 3.4 Store Sandwiches?

4. Is there a significant relationship between the level of proficiency in practical skills and learning material attributes of Specialized Cookery in Grade 9 students?

## II. METHODOLOGY

### Research Design

The research study employed a combination of Research and Development (R&D) and true experimental research designs. According to Sugiyono (2014), research and development approaches are used to create a product and evaluate its efficiency. This study aimed to assess the acceptability and validity of the cookery pocketbook as a learning material by analyzing respondents' feedback and students' proficiency after using it.

Calmorin (1994) described experimental research as a method that involves controlling or modifying conditions to examine the comparative effects of different treatments applied to individuals in a sample or across multiple samples. This study included two groups: the control group and the experimental group.

The acceptability of the developed product was measured based on its objectives, content, organization, presentation, and assessment. Meanwhile, the attributes of the cookery pocketbook as a learning material were evaluated in terms of usability, consistency, adaptability, self-instructional quality, and aesthetic value. These aspects were assessed using questionnaires

focusing on the components and characteristics of the cookery pocketbook in cooking.

Additionally, the true experimental research method was applied in this study. The experimental group was exposed to the developed cookery pocketbook, while the control group received traditional teaching methods. The pre-test and post-test results of both groups were collected, analyzed, and tabulated to provide answers to the research questions.

### **Research Locale**

The study was conducted at Salabaca National High School in Esperanza, Sultan Kudarat. The school is known for its tagline, "Serbisyong Natatangi Handog ng Salabaca (SNHS)," which reflects its commitment to providing quality education and instilling discipline under the guidance of dedicated administrators and teachers. Salabaca National High School serves as a beacon of education in the Salabaca community, fostering a supportive and inclusive learning environment where students can thrive.

The school offers high-quality education, experienced and dedicated teachers, and strong community engagement. As a public institution, it encourages students to develop social skills, promote personal growth, seek mentorship, and inspire others in the future.

Currently, the school has approximately 158 male and 146 female junior high school students, totaling 304 students. Additionally, there are 76 male and 89 female senior high school students, bringing the senior high school population to 165 students. The school's enrollment continues to increase each year.

### **Respondents of the Study**

The respondents of this study were Grade 9 students enrolled in the Specialized Cookery program at Salabaca National High School for the 2024-2025 school year. The experimental group consisted of 30 students from Grade 9 – Felicity, while the control group included 17 students from Grade 9 – Unity. The respondents were selected through a random sampling procedure, considering their knowledge and skill level required for the study.

Additionally, the study involved the Division Technical and Vocational Livelihood (TVL)

Coordinator-Education Program Supervisor, Master Teachers, Technology and Livelihood Education Teachers, Training Methodology Holders, and National Certificate Holders, who evaluated the Cookery Pocketbook alongside the students.

### **Sampling Technique**

The researcher employed purposive sampling to collect the necessary data for assessing the acceptability and validity of the material. The subjects were selected from two (2) sections of the Specialized Cookery program in Grade 9 for the 2024-2025 school year. The names of the students were obtained from School Form 1 (DepEd Form, 2017).

### **Data Gathering Instrument**

The researcher developed and utilized the Cookery Pocketbook as a learning material to enhance students' learning processes, providing them with adequate resources to improve their practical skills. The researcher adapted and modified survey questions, which were then distributed to master teachers, Technology and Livelihood Education (TLE) teachers, and Grade 9 Specialized Cookery students. The test items were based on the learning competencies mandated by the Department of Education (DepEd), specifically the Philippine Secondary School Learning Competencies in the K to 12 Enhanced Basic Education Curriculum.

The study focused on third-quarter topics from the Most Essential Learning Competencies (MELCs) (Weeks 1-3), which emphasize sandwich preparation.

The questionnaire of the study composes of three parts. The learning material comprises components, attributes, and students' practical skills. Part I. Learning Material Components were measured in terms of objectives, content, organization, presentation, and assessment. Part II. Learning Material Attributes were evaluated based on usability, consistency, adaptability, self-instructional properties, and aesthetic value. Part III. Students' proficiency in practical skills was assessed through the following required competencies: performing *mise en place*, which involved various activities aligned with learning competencies; preparing a variety of sandwiches,

with tasks designed to develop mastery of skills; presenting an array of sandwiches, assessing the execution and mastery of skills; and storing sandwiches, where learners practiced and adhered to the Technical Education and Skills Development Authority (TESDA) standards. The researcher used a questionnaire and a five (5)-point Likert scale to gather data. The following scale and verbal interpretation were applied to evaluate the level of acceptability across different variables.

**Part I. Learning Material Components**

Table 1 presents the rating scale used to evaluate the learning material components based on their objectives. It consists of five (5) levels, each with a corresponding range, descriptive rating, and interpretation. A score of 4.30–5.00 is rated as Strongly Agree, indicating that the material is Extremely Acceptable. A score of 3.40–4.29 is rated as Agree, meaning the material is Acceptable. A score of 2.60–3.39 is classified as Moderately Agree, signifying Moderate Acceptability. A score of 1.80–2.59 is rated as Disagree, reflecting Slight Acceptability. Lastly, a score of 1.00–1.79 is rated as Strongly Disagree, indicating that the material is Not Acceptable. This scale provides a structured assessment of how well the learning objectives of the material meet educational standards.

Table 1. Scale for Learning Material Components in terms of Objectives.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

Table 2 outlines the scale used to assess the content of the learning material. It includes five (5) rating levels, each corresponding to a specific range, descriptive rating, and interpretation. A score of 4.30–5.00 is rated as Strongly Agree, indicating that the content is Extremely Acceptable. A score of 3.40–4.29 is rated as

Agree, meaning the content is Acceptable. A score of 2.60–3.39 is classified as Moderately Agree, signifying Moderate Acceptability. A score of 1.80–2.59 is rated as Strongly Disagree, reflecting Slight Acceptability. Lastly, a score of 1.00–1.79 is rated as Disagree, indicating that the content is Not Acceptable. This scale helps determine the quality, relevance, and effectiveness of the learning material’s content.

Table 2. Scale for Learning Material Components in terms of Content.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

Table 3 presents the scale used to evaluate the organization of the learning material. It consists of five rating levels, each corresponding to a specific range, descriptive rating, and interpretation. A score of 4.30–5.00 is rated as Strongly Agree, indicating that the organization of the material is Extremely Acceptable. A score of 3.40–4.29 is rated as Agree, meaning the organization is Acceptable. A score of 2.60–3.39 is classified as Moderately Agree, signifying Moderate Acceptability. A score of 1.80–2.59 is rated as Disagree, reflecting Slight Acceptability. Lastly, a score of 1.00–1.79 is rated as Strongly Disagree, indicating that the organization is Not Acceptable. This scale helps assess the clarity, structure, and logical flow of the learning material.

Table 3. Scale for Learning Material Components in terms of Organization.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

Table 4 outlines the scale used to evaluate the presentation of the learning material. The rating system consists of five levels, each corresponding to a specific range, descriptive rating, and interpretation. A score of 4.30–5.00 is rated as

Strongly Agree, indicating that the presentation is Extremely Acceptable. A score of 3.40–4.29 is rated as Agree, meaning the presentation is Acceptable. A score of 2.60–3.39 is classified as Moderately Agree, signifying Moderate Acceptability. A score of 1.80–2.59 is rated as Disagree, reflecting Slight Acceptability. Lastly, a score of 1.00–1.79 is rated as Strongly Disagree, indicating that the presentation is Not Acceptable. This scale helps assess the clarity, visual appeal, and effectiveness of the material's presentation.

Table 4. Scale for Learning Material Components in terms of Presentation.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

Table 5 presents the scale used to evaluate the assessment component of the learning material. The scale is divided into five levels, each corresponding to a specific range, descriptive rating, and interpretation. A score of 4.30–5.00 is rated as Strongly Agree, indicating that the assessment is Extremely Acceptable. A score of 3.40–4.29 is rated as Agree, meaning the assessment is Acceptable. A score of 2.60–3.39 falls under Moderately Agree, signifying Moderate Acceptability. A score of 1.80–2.59 is classified as Disagree, reflecting Slight Acceptability. Lastly, a score of 1.00–1.79 is rated as Strongly Disagree, indicating that the assessment is Not Acceptable. This scale helps determine the effectiveness, relevance, and clarity of the assessment tools used in the learning material.

Table 5. Scale for Learning Material Components in terms of Assessment.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

## Part II. Learning Material Attributes

Table 6 outlines the scale used to assess the usability of the learning material. This scale categorizes responses into five levels based on a specific range, descriptive rating, and interpretation. A score of 4.30–5.00 is rated as Strongly Agree, signifying that the usability of the material is Extremely Acceptable. A score of 3.40–4.29 is rated as Agree, indicating that it is Acceptable. A score of 2.60–3.39 falls under Moderately Agree, meaning it is Moderately Acceptable. A score of 1.80–2.59 is rated as Disagree, classifying it as Slightly Acceptable. Lastly, a score of 1.00–1.79 is rated as Strongly Disagree, meaning the usability is Not Acceptable. This scale is essential in determining whether the learning material is easy to use, accessible, and beneficial for students in enhancing their learning experience.

Table 6. Scale for Learning Material Attributes in terms of Usability.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

Table 7 presents the scale used to evaluate the consistency of the learning material. The ratings range from Strongly Agree (4.30–5.00), indicating that the material is Extremely Acceptable, to Strongly Disagree (1.00–1.79), meaning it is Not Acceptable. The scale helps determine whether the learning material maintains uniformity in structure, content, and instructional approach. A higher rating suggests that the material is well-organized, logically sequenced, and consistently aligned with learning objectives, ensuring a smooth learning experience for students

Table 7. Scale for Learning Material Attributes in terms of Consistency.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

Table 8 presents the scale used to assess the adaptability of the learning material. The ratings range from Strongly Agree (4.30–5.00), signifying that the material is Extremely Acceptable, to Strongly Disagree (1.00–1.79), indicating it is Not Acceptable. This scale evaluates how well the learning material adjusts to different learning styles, student needs, and educational settings. A higher rating suggests that the material is flexible, easily applicable across various learning environments, and effectively supports diverse learners, making it a valuable educational resource.

Table 8. Scale for Learning Material Attributes in terms of Adaptability.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

Table 9 outlines the scale used to evaluate the self-instructional quality of the learning material. The ratings range from Strongly Agree (4.30–5.00), indicating the material is Extremely Acceptable, to Strongly Disagree (1.00–1.79), meaning it is Not Acceptable. This scale assesses how well the material enables independent learning, provides clear instructions, and guides students through the learning process without requiring constant teacher supervision. A higher rating suggests that the material is structured effectively, allowing students to learn at their own pace with minimal external assistance.

Table 9. Scale for Learning Material Attributes in terms of Self-Instructional.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

Table 10 presents the scale used to assess the aesthetic values of the learning material, evaluating its visual appeal, design, and overall presentation. The ratings range from Strongly Agree (4.30–5.00), which signifies the material is Extremely Acceptable, to Disagree (1.00–1.79), indicating it is Not Acceptable. A higher rating reflects well-designed material that is visually engaging, organized, and appealing to learners, enhancing their interest and motivation. This criterion ensures that the learning material is not only educationally effective but also visually stimulating and user-friendly.

Table 10. Scale for Learning Material Attributes in terms of Aesthetic Values.

SCALE	RANGE	DESCRIPTIVE RATING	INTERPRETATION
5	4.30-5.00	Strongly Agree	Extremely Acceptable
4	3.40-4.29	Agree	Acceptable
3	2.60-3.39	Moderately Agree	Moderately Acceptable
2	1.80-2.59	Disagree	Slightly Acceptable
1	1.00-1.79	Strongly Disagree	Not Acceptable

### Part III. Student’s Proficiency in Practical Skills

Table 11 presents the scale used to evaluate students' proficiency in performing mise en place, a fundamental skill in culinary education. The scale categorizes students' skill levels based on their ability to perform tasks effectively.

Table 11. Scale for Students’ Proficiency in Perform Mise En Place.

SCORE	RANGE	PERFORMANCE LEVEL	INTERPRETATION
9-10	4.30-5.00	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.	Outstanding
7-8	3.40-4.29	Can perform the skill satisfactorily without supervision and with initiative and adaptability to problem situations.	Very Satisfactory
5-6	2.60-3.39	Can perform the skill satisfactorily without assistance or supervision.	Satisfactory
3-4	1.80-2.59	Can perform the skill satisfactorily but requires some assistance and/or supervision.	Unsatisfactory
0-2	1.00-1.79	Can perform parts of the skill satisfactorily but requires considerable assistance and/or supervision	Poor

Table 12 presents the scale used to assess students' proficiency in preparing a variety of sandwiches, a key skill in culinary education.

Table 12. Scale for Students' Proficiency in Preparing a Variety of Sandwiches.

SCORE	RANGE	PERFORMANCE LEVEL	INTERPRETATION
9-10	4.30-5.00	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.	Outstanding
7-8	3.40-4.29	Can perform the skill satisfactorily without supervision and with initiative and adaptability to problem situations.	Very Satisfactory
5-6	2.60-3.39	Can perform the skill satisfactorily without assistance or supervision.	Satisfactory
3-4	1.80-2.59	Can perform the skill satisfactorily but requires some assistance and/or supervision.	Unsatisfactory
0-2	1.00-1.79	Can perform parts of the skill satisfactorily but requires considerable assistance and/or supervision	Poor

Table 13 outlines the scale used to assess students' proficiency in presenting a variety of sandwiches.

Table 13. Scale for Students' Proficiency in Presenting a Variety of Sandwiches.

SCORE	RANGE	PERFORMANCE LEVEL	INTERPRETATION
9-10	4.30-5.00	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.	Outstanding
7-8	3.40-4.29	Can perform the skill satisfactorily without supervision and with initiative and adaptability to problem situations.	Very Satisfactory
5-6	2.60-3.39	Can perform the skill satisfactorily without assistance or supervision.	Satisfactory
3-4	1.80-2.59	Can perform the skill satisfactorily but requires some assistance and/or supervision.	Unsatisfactory
0-2	1.00-1.79	Can perform parts of the skill satisfactorily but requires considerable assistance and/or supervision	Poor

Table 14 presents the scale used to assess students' proficiency in properly storing sandwiches.

Table 14. Scale for Students' Proficiency Storing Sandwiches.

SCORE	RANGE	PERFORMANCE LEVEL	INTERPRETATION
9-10	4.30-5.00	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.	Outstanding
7-8	3.40-4.29	Can perform the skill satisfactorily without supervision and with initiative and adaptability to problem situations.	Very Satisfactory
5-6	2.60-3.39	Can perform the skill satisfactorily without assistance or supervision.	Satisfactory
3-4	1.80-2.59	Can perform the skill satisfactorily but requires some assistance and/or supervision.	Unsatisfactory
0-2	1.00-1.79	Can perform parts of the skill satisfactorily but requires considerable assistance and/or supervision	Poor

Lastly, to determine whether the student's performance in the practical test results differed significantly, Minitab 14 was used to compute the data gathered and treat them statistically using Analysis of Variance. The computed p-values were compared to the significance level at 0.05 to determine the significant effect of the pocketbook's components and attributes on students' performance.

The actual experiment research design and pretest-posttest control group design were used to obtain the quantitative data to address the study's objectives and give accurate and reliable results. The researcher sought to assess the components and attributes of the developed cookery pocketbook as learning materials. The first group is designated as the control group, while the

second group is the experimental group. Both groups are given the same pre-test. The control group is not treated, while the experimental group is given the treatment.

After the experimental period, the experimental group is given the post-test. The pretest and post-test consisted of thirty (60) questions, and multiple-choice tests focused on sandwiches and test questions were adapted from the self-learning modules of the Department of Education. The researcher conducted a reliability test for students who were not her respondents to probe the validity of the pre-test.

In addition, this study was composed of seven (7) experts who validated the developed cookery pocketbook as learning material using the validation tool adapted and modified from the DepEd Learning Resource Management Development System (LRMDS) and 50 students to test the acceptability and validity of the cookery pocketbook as learning materials. Table of Specifications (TOS) (DepEd, 2017) was made to ensure the proper distribution of the test items.

To determine the Grade 9 students' proficiency in Practical Skills, the following Equivalent Numerical Value and Level of Proficiency are adapted from the K to 12 Enhanced Basic Education Curriculum of DepEd Order No 73, s. 2012, and shown below.

### Data Gathering Procedure

The researcher considered the following steps to ensure the success in the implementation and conduct of the study:

Initially, the researcher proposed the study entitled Conceptualizing and Learnability of Cookery Pocketbook as Learning Materials, which focuses on Sandwiches in Specialized Cookery in Grade 9 Students at the Salabaca National High School to conduct the study. The panelists' approval was initially secure, and the researcher started the investigation and employed the procedures.

Before the experiment, the researcher was asked for permission from the Office of the Dean of Graduate Studies of Sultan Kudarat State University. Subsequently, permission to experiment was secured from the Office of the Schools Division Superintendent, where the school belongs, down to the Office of the Principal

of Salabaca National High School and addressed to the assigned Classroom Advisers and Teachers. The researcher was asked for permission from the parents whose students participated in the study.

The researcher developed the paper and pencil test needed for the study. After the approval, the researcher administered a pre-test to 30 students for the Experimental Group and seventeen (17) students for the Control Group. The test results were immediately recorded.

After the pre-test, the treatment followed the Cookery Pocketbook, which was applied to the experimental group, while the control group received traditional teaching.

After the lectures, activities, and treatment series, the researcher administered a post-test to the respondents. The content of the post-test was identical to that of the pre-test. To minimize threats to the instrument's validity, the researcher personally conducted both the pre-test and post-test. The respondents' scores were calculated to compare their cookery achievements. The results from the pre-test and post-test scores were then organized, tabulated, analyzed, and interpreted.

The details of the research process are shown in Figure 1.

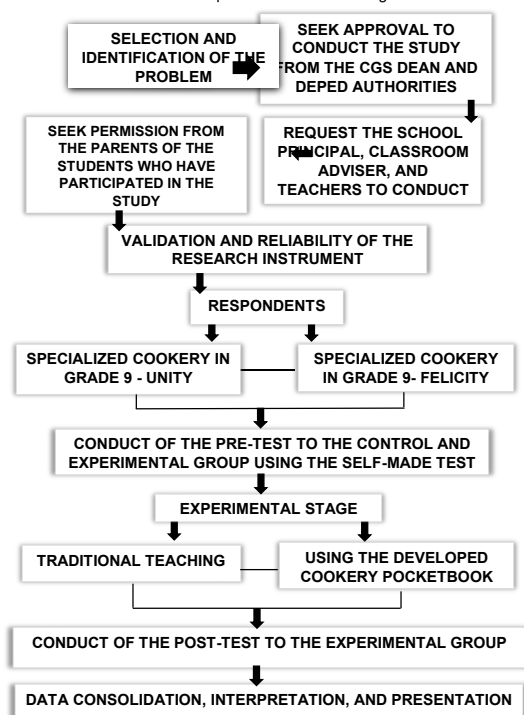


Figure 1. Diagram of the Data Gathering Procedures

### Statistical Treatment of Data

The following statistical measures and treatments were applied to analyze the data gathered in the study.

The weighted mean and standard deviation were used to determine the level of acceptability and validity of the Cookery Pocketbook as a learning material, particularly in the context of sandwich preparation. These were assessed based on objectives, content, activities, appeal to the target users, and assessment, as well as learning material attributes, including usability, consistency, adaptability, self-instructional properties, and aesthetic values.

Frequency, percentage, mean, and standard deviation were used to evaluate students' proficiency in practical skills, specifically in performing *mise en place*, preparing a variety of sandwiches, presenting a variety of sandwiches, and storing sandwiches. The practical tasks embedded in each lesson served as the basis for assessing respondents' performance.

Additionally, the Pearson-Product Moment Correlation was utilized to examine the relationship between the learning components and attributes of the Cookery Pocketbook and the level of proficiency in practical skills of the Grade 9 cookery students. This test was also used to determine whether the difference between the mean scores of the two groups was statistically significant.

All statistical treatments were applied at the 0.05 level of significance to ensure the reliability of the findings.

### III. RESULTS AND DISCUSSION

This chapter presents the results, analysis, and interpretation of the data gathered from the responses to the questionnaires distributed in the field.

The data are presented in tabular form, addressing the specific questions outlined in the statement of the problem, namely: (1) the level of acceptability of the Cookery Pocketbook as a learning material in terms of objectives, content, organization, presentation, and assessment; (2) the level of acceptability of the Cookery Pocketbook based on its attributes, including usability, consistency, adaptability, self-instructional properties, and aesthetic value; (3) the level of

students' proficiency in practical skills, specifically in performing *mise en place*, preparing a variety of sandwiches, presenting a variety of sandwiches, and storing sandwiches; and (4) whether there is a significant relationship between the level of proficiency in practical skills and the learning material attributes of Specialized Cookery Grade 9 students.

#### Level of Acceptability of the Cookery Pocketbook as Learning Material Components

In line with the first objective of this study, the acceptability of the Cookery Pocketbook as a learning material was evaluated based on objectives, content, organization, presentation, and assessment. The criteria for this evaluation were determined using the weighted mean and standard deviation.

Table 15. Level of Components of Cookery Pocketbook in terms of Objectives

STATEMENT	MEAN	SD	DESCRIPTION
1. The objectives of the pocketbook developed are simple and specific.	4.86	0.38	Strongly Agree
2. The objectives of the pocketbook developed are attainable and measurable.	4.86	0.38	Strongly Agree
3. The objectives of the pocketbook are time-bound.	4.86	0.38	Strongly Agree
4. The objectives of the pocketbook developed relevant to the learning inputs of the module.	4.86	0.38	Strongly Agree
5. The objectives of the pocketbook developed are directed at the student's learning inputs.	4.86	0.38	Strongly Agree
6. The objectives of the developed pocketbook contain three areas: knowledge, skills, and attitude.	4.57	0.53	Strongly Agree
7. The objectives of the pocketbook developed are logical and easy to understand.	4.71	0.49	Strongly Agree
8. The objectives of the pocketbook developed are realistic and reasonable.	4.86	0.38	Strongly Agree
<b>OVERALL</b>	<b>4.80</b>	<b>0.26</b>	<b>Extremely Acceptable</b>

**Legend:** 4.30-5.00 *Extremely Acceptable* 3.40-4.29 *Acceptable* 2.60-3.39 *Moderately Acceptable* 1.80-2.59 *Slightly Acceptable* 1.00-1.79 *Not Acceptable*

Table 15 Table 18 shows the level of acceptability of the cookery pocketbook as learning material components in Cookery as perceived by Master Teachers and Technology and Livelihood Education (TLE) Teachers in terms of the objectives.

The respondents strongly agree that the objectives of the Cookery Pocketbook encompass six (6) key statements: they are simple and

specific, attainable and measurable, time-bound, relevant to the learning inputs of the developed cookery pocketbook, directed toward students' learning inputs, and realistic and reasonable. This category received the highest mean score ( $M = 4.86$ ,  $SD = 0.38$ ). Similarly, respondents also strongly agree that the objectives cover three essential areas—knowledge, skills, and attitude—and are easy to understand, though this aspect received the lowest mean score ( $M = 4.57$ ,  $SD = 0.53$ ). This finding suggests that the objectives, as a fundamental component of the Cookery Pocketbook, are clearly presented and easily comprehensible to students.

As shown in the table above, all indicators were rated as Strongly Agree and evaluated as Extremely Acceptable, with an overall mean score of ( $M = 4.80$ ,  $SD = 0.26$ ). This further implies that the respondents strongly agree that the objectives of the instructional material are appropriate and suitable for students' level while also being relevant to their daily activities within the Cookery Pocketbook.

This result aligns with the findings of Baquiran (2023), who emphasized the effectiveness of video resources as a learning tool in cookery education. Baquiran highlighted that clear objectives, well-structured content, and effective assessment strategies are crucial for enhancing the quality and effectiveness of cookery learning among Specialized Grade 9 students.

Table 16. Level of Components of Cookery Pocketbook as Evaluated by the Learning Resource Validators in terms of Content.

STATEMENT	MEAN	SD	DESCRIPTION
1. The pocketbook's contents are based on the Essential Learning Competencies in each lesson and Self-Learning Module.	4.86	0.38	Strongly Agree
2. The learning objectives are aligned with the learning competencies and lead to the mastery of the targeted MELCs.	4.86	0.38	Strongly Agree
3. The concepts, terms, and facts are arranged clearly and logically for better understanding.	4.71	0.49	Strongly Agree
4. The pocketbook's contents are sufficient to cover the third quarter for Grade 9 students.	4.71	0.49	Strongly Agree
5. The terms and concepts are factually corrected.	4.43	0.79	Strongly Agree
6. The pocketbook includes adequate sandwich examples for concept development and leads to achieving the MELCs.	4.29	0.49	Strongly Agree
7. The contents of the pocketbook are appropriate for the intended learners.	4.71	0.49	Strongly Agree
8. The contents of the pocketbook are relevant, engaging, and self-motivating and enrich the knowledge of the learners who focus on sandwiches.	4.71	0.49	Strongly Agree
<b>OVERALL</b>	<b>4.66</b>	<b>0.14</b>	<b>Extremely Acceptable</b>

Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable

Table 16 presents the level of acceptability of the Cookery Pocketbook as a learning material in Cookery, as perceived by Master Teachers and Technology and Livelihood Education (TLE) Teachers, specifically in terms of content.

The findings indicate that respondents strongly agree that the lessons included in the Cookery Pocketbook support the mastery of Most Essential Learning Competencies (MELCs), as reflected in the highest mean score ( $M = 4.86$ ,  $SD = 0.38$ ). This is followed by their agreement that the objectives of the pocketbook include adequate sandwich examples for concept development and contribute to the achievement of MELCs, which received a mean score of ( $M = 3.71$ ,  $SD = 0.82$ ). Despite having the lowest mean, this aspect was still rated as Strongly Agree, reinforcing the idea that the content of the Cookery Pocketbook aligns with its intended characteristics.

The overall mean score of ( $M = 4.66$ ,  $SD = 0.14$ ) indicates that the content of the Cookery Pocketbook is deemed extremely acceptable by the respondents. This suggests that they recognize the relevance of the lessons included in the learning material. Moreover, the results imply that the Cookery Pocketbook serves as an effective learning tool, aiding students in understanding cooking terms and concepts while encouraging independent knowledge exploration.

The findings of this study align with the research of Hidayah and Ridianingsih (2022), which emphasized that the design of pocketbooks significantly influences their effectiveness. The study highlighted that visually appealing and interactive features enhance student engagement and retention. Similarly, Cabilin (2022) underscored the importance of module characteristics in cookery education, noting that the acceptability of modules in terms of objectives, content, and design plays a crucial role in student performance. The study further emphasized that well-structured and visually engaging modules contribute to a more effective and stimulating learning environment.

Table 17. Level of Components of Cookery Pocketbook in terms of Organization.

STATEMENT	MEAN	SD	DESCRIPTION
1. The activities are arranged from simple to challenging.	4.57	0.53	Strongly Agree
2. The statements/phrases are coherent and within the context of the MELC.	4.86	0.38	Strongly Agree
3. The length of sentences is suitable for the students.	4.71	0.49	Strongly Agree
4. Words are correctly spelled.	4.71	0.49	Strongly Agree
5. Punctuations are appropriately used and are in the right places.	4.71	0.49	Strongly Agree
6. Rules on capitalization and hyphenation are observed	4.71	0.49	Strongly Agree
7. Thoughts or ideas are logically sequenced.	4.57	0.53	Strongly Agree
8. Headings or titles are appropriate to the content.	4.86	0.38	Strongly Agree
<b>OVERALL</b>	<b>4.71</b>	<b>0.17</b>	<b>Extremely Acceptable</b>

Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable

Table 17 presents the level of acceptability of the Cookery Pocketbook as a learning material in Cookery, as perceived by Master Teachers and Technology and Livelihood Education (TLE) Teachers, specifically in terms of organization.

The findings indicate that respondents strongly agree with two (2) key statements: (1) the organization of the Cookery Pocketbook contains headings or titles that are appropriate to the content, and (2) the phrases are coherent and aligned with the Most Essential Learning Competencies (MELCs). These aspects received the highest mean score (M = 4.86, SD = 0.38). However, respondents agree that the thoughts and ideas in the Cookery Pocketbook are logically sequenced, which received the lowest mean score (M = 4.57, SD = 0.53). This implies that while the organization of the pocketbook meets the

evaluation criteria, there is room for improvement in ensuring a more seamless sequencing of ideas.

As shown in Table 5, organization plays a crucial role in making the Cookery Pocketbook extremely acceptable to the respondents, as reflected in the overall mean score (M = 4.71, SD = 0.71). This indicates that the Cookery Pocketbook is well-structured and consistent, facilitating an easy and effective learning experience that helps students gain the required knowledge and skills.

The findings align with the study of Elarco (2023), which emphasizes that organized learning experiences, such as workshops and structured cooking classes, are essential in developing practical skills among students. Additionally, research on differentiated instructional strategies highlights their effectiveness in enhancing student performance in cookery classes, underscoring the importance of structured and tailored teaching approaches to accommodate diverse learning needs.

Table 18. Level of Components of Cookery Pocketbook in terms of Presentation.

STATEMENT	MEAN	SD	DESCRIPTION
1. The pocketbook has adequate margins, a legible font style, and a comfortable font size.	4.57	0.53	Strongly Agree
2. The material is presented in a way students understand.	4.71	0.49	Strongly Agree
3. The pocketbook is presented at a pace that allows review and reinforce activities.	4.86	0.38	Strongly Agree
4. The pocketbook has sufficient space provided for the student's response.	4.57	0.53	Strongly Agree
5. The design and appearance of the pocketbook are exceptionally different from other materials in circulation.	4.71	0.49	Strongly Agree
6. Questions and tasks are clearly labeled with numbers or letters.	4.71	0.49	Strongly Agree
7. The pocketbook is appealing and motivating.	4.71	0.49	Strongly Agree
8. The pocketbook presents clear images and other visuals.	4.86	0.38	Strongly Agree
<b>OVERALL</b>	<b>4.71</b>	<b>0.06</b>	<b>Extremely Acceptable</b>

Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable

The table above presents the level of acceptability of the Cookery Pocketbook as a learning material in Cookery, as perceived by Master Teachers and Technology and Livelihood Education (TLE) Teachers, specifically in terms of presentation.

The respondents strongly agree that the Cookery Pocketbook contains clear images and other visuals, as well as a pace that allows for review and reinforcement activities, which earned the highest mean score (M = 4.86, SD = 0.38).

Additionally, they strongly agree that the Cookery Pocketbook includes adequate margins, a legible font style, a comfortable font size, and sufficient space for students’ responses, though this aspect received the lowest mean score (M = 4.57, SD = 0.53). These findings suggest that the presentation of the Cookery Pocketbook is visually appealing and user-friendly, helping to motivate creativity and enhance comprehension and mastery among students.

The overall evaluation of the Cookery Pocketbook’s presentation was extremely acceptable, as indicated by the overall mean score (M = 4.71, SD = 0.06). This further highlight that its presentation effectively stimulates students’ interest in the subject.

The results suggest that the Cookery Pocketbook has a positive motivational effect on students, supporting the effective delivery of lessons. The findings also indicate that the Cookery Pocketbook enhances the teaching-learning process by capturing students’ attention, reducing dullness, and making lessons easier to understand.

This is supported by Espiritu (2022), whose study on supplementary learning materials for Technology and Livelihood Education-Cookery assessed their acceptability based on objectives, content, activities, and assessments. The study found that these materials were highly accepted by students, demonstrating that well-presented learning resources significantly contribute to better learning outcomes in cookery education.

Table 19. Level of Components of Cookery Pocketbook in terms of Assessment.

STATEMENT	MEAN	SD	DESCRIPTION
1. The assessment that measures students' skills has a pre-test and post-assessment.	4.57	0.79	Strongly Agree
2. The assessment that measures students' skills is a tool to determine students' performance based on every lesson.	4.71	0.49	Strongly Agree
3. The assessment that measures students' skills provides assessment tools to support multiple intelligences for the students.	4.57	0.53	Strongly Agree
4. The assessment that measures students' skills allows self-assessment for a particular topic.	4.86	0.38	Strongly Agree
5. The assessment that measures students' skills involves an appropriate list of questions aligned to the objectives.	4.86	0.38	Strongly Agree
6. The assessment that measures students' skills is used in the pocketbook to support the students' multiple intelligences.	4.57	0.53	Strongly Agree
7. The assessment that measures students' skills provides clear and specific instructions.	4.71	0.49	Strongly Agree
8. The assessment that measures students' skills provides students with effective feedback and potentially improves their motivation or self-esteem.	4.71	0.49	Strongly Agree
<b>OVERALL</b>	<b>4.70</b>	<b>0.07</b>	<b>Extremely Acceptable</b>

Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable

Table 19 presents the level of acceptability of the Cookery Pocketbook as a learning material in Cookery, as perceived by Master Teachers and Technology and Livelihood Education (TLE) Teachers, specifically in terms of assessment.

With the highest mean score (M = 4.86, SD = 0.38), respondents strongly agree that the assessment effectively measures students' skills, allowing for self-assessment on a particular topic. Additionally, the assessment includes an appropriate list of questions aligned with the objectives. Similarly, with the lowest mean score (M = 4.57, SD = 0.79, 0.53), respondents still strongly agree that the assessment methods include pre-tests and post-assessments, provide assessment tools supporting multiple intelligences, and offer evaluations tailored to different learning styles.

These findings imply that respondents strongly agree that the assessment component of the Cookery Pocketbook is well-designed and highly acceptable, as reflected in the overall mean score (M = 4.70, SD = 0.07).

The assessments included in the Cookery Pocketbook are not just for academic compliance but also serve to showcase students' practical skills and competencies. This suggests that students can

thoroughly understand and execute the processes required in their performance assessments. Furthermore, teachers play a crucial role in providing necessary feedback after students complete their assessments, ensuring continuous learning and improvement.

This is supported by Elarco (2023), who emphasized that assessment methods should align with learning objectives and activities to accurately measure student performance. Similarly, Hansen et al. (2019) highlighted the importance of formative assessments, which provide ongoing feedback—an essential factor in practical subjects like cookery. Additionally, interactive features in pocketbooks, such as quizzes and cooking challenges, promote active participation and critical thinking, further enhancing students' learning experiences.

#### Level of Acceptability of the Cookery Pocketbook as Learning Material Attributes

In agreement with the second objective of this study, the criteria to evaluate the acceptability of the Cookery Pocketbook as learning materials in terms of usability, consistency, adaptability, self-instructional, and aesthetic values were determined by the weighted mean and standard deviation.

Table 20. Level of Attributes of Cookery Pocketbook in terms of Usability.

STATEMENT	MEAN	SD	DESCRIPTION
1. The usability of the learning pocketbook can be used independently.	4.33	0.90	Strongly Agree
2. The usability of the learning pocketbook involves different activities that are easy to do.	4.47	0.64	Strongly Agree
3. The usability of the learning pocketbook uses words or terms that are easy to understand.	4.67	0.49	Strongly Agree
4. The usability of the learning pocketbook served as supplementary instructional materials or set of references.	4.67	0.72	Strongly Agree
5. The usability of the learning pocketbook is used as a tool for learning development among the students.	4.67	0.62	Strongly Agree
6. The usability of the learning pocketbook helped maintain interest in the subject.	4.40	0.74	Strongly Agree
7. The usability of the learning pocketbook demonstrates opportunities to practice new concepts and skills that can be applied in a real-life setting.	4.60	0.51	Strongly Agree
8. The usability of the learning pocketbook provides a self-assessment to improve students' grammar, skills, and abilities.	4.47	0.64	Strongly Agree
<b>OVERALL</b>	<b>4.53</b>	<b>0.22</b>	<b>EXTREMELY HIGH</b>

*Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable*

Table 20 presents the level of acceptability of the Cookery Pocketbook as a learning material attribute in terms of usability.

The respondents strongly agree that the usability of the Cookery Pocketbook is enhanced by its use of simple and easily understandable terms, its role as supplementary instructional material, and its function as a tool for learning development among students. These aspects received the highest mean scores of (M = 4.67, SD = 0.49), (M = 4.67, SD = 0.72), and (M = 4.67, SD = 0.62), respectively. However, the lowest mean score (M = 4.33, SD = 0.90) was assigned to the statement that the Cookery Pocketbook can be used independently, though respondents still strongly agreed with this aspect.

The overall mean score of (M = 4.53) indicates that the usability of the Cookery Pocketbook is perceived as extremely acceptable. This suggests that the pocketbook serves as an effective independent supplementary instructional material that supports students' learning and skill development.

The findings align with the study of Johnson et al. (2020), which emphasized that usability attributes such as simplicity and comprehensibility are essential for mobile health learning applications, suggesting that these principles can also be applied to cookery learning resources. Similarly, Tolle et al. (2020) highlighted that

usability plays a crucial role in maintaining student interest and ensuring effective learning.

Table 21. Level of Attributes of Cookery Pocketbook in terms of Consistency.

STATEMENT	MEAN	SD	DESCRIPTION
1. The consistency of the learning pocketbook focuses on the main objectives	4.33	0.82	Strongly Agree
2. The consistency of the learning pocketbook consists of topics that are logically related to the lesson	4.80	0.56	Strongly Agree
3. The consistency of the learning pocketbook achieves objectives for each lesson	4.47	0.64	Strongly Agree <sup>170</sup>
4. The consistency of the learning pocketbook provides learning tasks that are parallel to the objectives of each topic	4.07	0.80	Agree
5. The consistency of the learning pocketbook contains topics that are interesting about cookery.	4.87	0.35	Strongly Agree
6. The consistency of the learning pocketbook is accurate in terms of keywords, sentences, and paragraphs.	4.20	0.68	Agree
7. The consistency of the learning pocketbook feels natural, as the words used are commonly used and familiar to the students.	4.47	0.52	Strongly Agree
8. The consistency of the learning pocketbook contains logically related topics.	4.73	0.46	Strongly Agree
<b>OVERALL</b>	<b>4.49</b>	<b>0.15</b>	<b>Extremely Acceptable</b>

Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable

Table 21 presents the level of acceptability of the Cookery Pocketbook as a learning material attribute in terms of consistency.

With the highest mean score (M = 4.87, SD = 0.35), respondents strongly agree that the Cookery Pocketbook maintains consistency by presenting interesting topics related to cookery. However, with the lowest mean score (M = 4.07, SD = 0.80), respondents agree that the pocketbook provides learning tasks that align with the objectives of each topic. This suggests that the material is well-organized and follows a logical sequence, making it easier for students to understand and use effectively.

The overall mean score (M = 4.49, SD = 0.15) indicates that respondents strongly agree with the consistency of the Cookery Pocketbook, interpreting it as extremely acceptable. This means that the pocketbook effectively presents topics that align with its objectives and activities, ensuring logical relevance to each lesson. Furthermore, its consistency in delivering concepts contributes to improving students' knowledge, skills, and abilities, ultimately supporting the expected

learning outcomes outlined in the Department of Education's Curriculum Guide.

As noted by Coca-Ugrinowitsch et al. (2014), performance consistency improves through appropriate feedback mechanisms, which are essential in culinary training, where precision is key. A cookery pocketbook that integrates consistent feedback strategies can help students refine their cooking techniques and achieve better results.

Table 22. Level of Attributes of Cookery Pocketbook in terms of Adaptability.

STATEMENT	MEAN	SD	DESCRIPTION
1. The students can adapt to the language used in the pocketbook.	4.40	0.51	Strongly Agree
2. The pocketbook reduces the feeling of isolation and motivates student engagement towards self-learning.	4.47	0.74	Strongly Agree
3. The students can easily follow the directions in the activities and performance tasks.	4.53	0.64	Strongly Agree
4. The pocketbook encourages and motivates the students to learn the concepts presented in the module.	4.47	0.64	Strongly Agree
5. The students attain the desired academic goals, and growth is linked to a positive outcome.	4.40	0.51	Strongly Agree
6. The pocketbook provides an opportunity for self-study.	4.53	0.64	Strongly Agree
7. The pocketbook is adaptable to use across the curriculum.	4.47	0.64	Strongly Agree
8. The pocketbook provides different activities which are aligned with specific lessons.	4.87	0.35	Strongly Agree
<b>OVERALL</b>	<b>4.52</b>	<b>0.23</b>	<b>Extremely Acceptable</b>

Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable

Table 22 presents the level of acceptability of the Cookery Pocketbook as a learning material attribute in terms of adaptability.

Respondents strongly agree that the pocketbook provides various activities aligned with specific lessons, as reflected in the highest mean score (M = 4.87, SD = 0.35). However, they agree that students can adapt to the language used in the pocketbook, which received the lowest mean score (M = 4.40, SD = 0.51). This suggests that while the language used in the Cookery Pocketbook is generally comprehensible, there is still room for improvement in ensuring that all learners can easily grasp its concepts and terms.

The overall mean score (M = 4.52, SD = 0.23) indicates that the adaptability of the Cookery Pocketbook is evaluated as extremely acceptable. This implies that respondents strongly agree that the pocketbook's use of student-friendly language allows learners to understand information quickly and effectively. Furthermore, the increased adaptability of students in using instructional

materials, such as the Cookery Pocketbook, enables them to grasp concepts and terminology independently.

This is supported by Martin (2017), who defines adaptability as the ability to modify behavior, thoughts, and emotions in response to new situations. This skill is particularly important in education, as it allows students to adjust their learning methods based on the challenges they encounter, such as using pocketbooks for sandwich-making activities. Additionally, the American Psychological Association highlights that adaptability involves making appropriate responses to different situations by adjusting one’s thoughts, emotions, and actions accordingly.

Table 23. Level of Attributes of Cookery Pocketbook in terms of Self-Instructional.

STATEMENT	MEAN	SD	DESCRIPTION
1. The pocketbook in cookery allows the students to learn about a new topic at their own pace.	4.27	0.46	Strongly Agree
2. The pocketbook in cookery increases attention to a task.	4.73	0.59	Strongly Agree
3. The pocketbook in cookery provides students with an element of control over their learning.	4.47	0.83	Strongly Agree
4. The pocketbook in cookery allows the students to engage in their learning process actively.	4.40	0.63	Strongly Agree
5. Pocketbooks in cookery require minimal time to maintain skills once they are developed.	4.40	0.63	Strongly Agree
6. The pocketbook in cookery allows the students to learn independently.	4.47	0.74	Strongly Agree
7. The cookery pocketbooks are adequate and comprehensive to ensure understanding of concepts and mastery of skills.	4.47	0.74	Strongly Agree
8. The cookery pocketbook provides different exercises with varied difficulty levels for different capabilities.	4.40	0.63	Strongly Agree
<b>OVERALL</b>	<b>4.45</b>	<b>0.15</b>	<b>Extremely Acceptable</b>

Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable

As reflected in the table above, the level of acceptability of the Cookery Pocketbook as a learning material attribute in terms of self-instructional capacity was evaluated.

Respondents strongly agree that the pocketbook enhances students' attention to tasks, as indicated by the highest mean score (M = 4.73, SD = 0.59). Additionally, they strongly agree that the pocketbook allows students to learn at their own pace when exploring new topics, though this aspect received the lowest mean score (M = 4.27, SD = 0.46). This suggests that the self-instructional design of the Cookery Pocketbook

effectively supports independent learning by providing content that is easy to follow. The structured tasks help learners understand new concepts and develop skills, ultimately enhancing their learning experience.

The overall mean score of (M = 4.45, SD = 0.23) indicates that the self-instructional attributes of the Cookery Pocketbook are perceived as extremely acceptable. This means that students can effectively learn on their own without the need for parental or guardian assistance.

Santos (2024) emphasized the significance of self-instructional learning materials, such as the Cookery Pocketbook, in improving student learning and motivation. Similarly, Azmi (2024) highlighted the advantages of pocketbooks' compact and portable nature, allowing learners to access content conveniently and engage with the material anytime, anywhere.

Table 24. Level of Attributes of Cookery Pocketbook in terms of Aesthetic Values.

STATEMENT	MEAN	SD	DESCRIPTION
1. The aesthetic values of the developed pocketbook utilize appropriate text, font size, and type.	4.80	0.41	Strongly Agree
2. The aesthetic values of the developed pocketbook contain icons to enhance understanding of learning contents.	4.60	0.51	Strongly Agree
3. The aesthetic values of the developed pocketbook are generally appealing and motivating.	4.47	0.74	Strongly Agree
4. The aesthetic values of the developed pocketbook use appropriate illustrations/ pictures that apply to the topic.	4.80	0.41	Strongly Agree
5. The aesthetic values of the developed pocketbook use artistic/creative ideas in developing new and original modules.	4.87	0.35	Strongly Agree
6. The aesthetic values of the developed pocketbook contain simple icons and visually clear images.	4.73	0.46	Strongly Agree
7. The aesthetic values of the developed pocketbook is printed in straightforward and easy-to-understand graphics.	4.53	0.64	Strongly Agree
8. The aesthetic values of the developed pocketbook have color pictures to get the readers' attention and motivate them to answer.	4.67	0.62	Strongly Agree
<b>Overall</b>	<b>4.68</b>	<b>0.18</b>	<b>Extremely Acceptable</b>
<b>OVERALL LEVEL OF ATTRIBUTES</b>	<b>4.54</b>	<b>0.10</b>	<b>Extremely Acceptable</b>

Legend: 4.30-5.00 Extremely Acceptable 3.40-4.29 Acceptable 2.60-3.39 Moderately Acceptable 1.80-2.59 Slightly Acceptable 1.00-1.79 Not Acceptable

Table 24 presents the level of acceptability of the Cookery Pocketbook as a learning material attribute in terms of aesthetic value, which was

found to be highly acceptable, as evidenced by the overall mean score of ( $M = 4.68, SD = 0.18$ ).

Respondents strongly agree that the aesthetic values of the developed pocketbook incorporate artistic and creative ideas in designing new and original modules, as supported by the highest mean score ( $M = 4.87, SD = 0.35$ ). However, they also strongly agree that the pocketbook is visually appealing and motivating, though this aspect received the lowest mean score ( $M = 4.47, SD = 0.74$ ). This suggests that aesthetic elements play a crucial role in creating interactive and effective learning materials. A well-designed visual layout attracts students' attention and encourages engagement with the content.

The overall mean score of ( $M = 4.54, SD = 0.10$ ) indicates that the aesthetic attributes of the Cookery Pocketbook are perceived as extremely acceptable. This highlights the importance of combining attractive design, user-friendly interfaces, and well-organized content, as these elements together enhance the learning experience and contribute to better educational outcomes. Additionally, it is essential to distinguish between the design of individual learning items and the overall learning environment, as both aspects impact students' engagement and comprehension.

This perspective is supported by Parrish (2020), who argues that recognizing the aesthetic potential of learning environments can lead to more compelling and immersive learning experiences. This is particularly relevant to a cookery pocketbook, as it not only conveys recipes and cooking techniques but also showcases the aesthetic aspects of culinary arts, such as presentation and flavor combinations, inspiring students to explore their creativity.

Table 25 Level of Student's Proficiency in Practical Skills in terms of Perform Mise' En Place.

PERFORMANCE STANDARDS	MEAN	SD	DESCRIPTION
1. Tools, utensils, and equipment are cleaned, sanitized, and prepared based on the required tasks	4.60	0.63	Outstanding
2. Ingredients are identified correctly, according to standard recipes, recipe cards, or enterprise requirements.	4.73	0.59	Outstanding
3. Ingredients are assembled according to the required quantity, type, and quality.	4.80	0.56	Outstanding
4. Ingredients are prepared based on the required form and time frame.	4.47	0.74	Outstanding
5. Frozen ingredients are thawed following enterprise procedures.	4.67	0.62	Outstanding
6. Where necessary, raw ingredients are washed with clean potable water.	4.87	0.35	Outstanding
<b>OVERALL</b>	<b>4.69</b>	<b>0.27</b>	<b>Outstanding</b>
<b>PERFORMANCE LEVEL</b>	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.		

Legend:

4.30-5.00	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.
3.40-4.29	Can perform the skill satisfactorily without supervision and with initiative and adaptability to problem situations.
2.60-3.39	Can perform the skill satisfactorily without assistance or supervision.
1.80-2.59	Can perform the skill satisfactorily but requires some assistance and/or supervision.
1.00-1.79	Can perform parts of the skill satisfactorily but requires considerable assistance and/or supervision

Table 25 presents the level of students' proficiency in practical skills in terms of performing mise en place.

With the highest mean score of ( $M = 4.87, SD = 0.35$ ), students demonstrated outstanding performance in ensuring that raw ingredients are washed with clean, potable water when necessary. Meanwhile, the lowest mean score ( $M = 4.47, SD = 0.73$ ) was observed in students' performance in preparing ingredients according to the required form and within the given time frame, though it was still rated as outstanding.

Overall, the students' performance level was outstanding, as indicated by the overall mean score of ( $M = 4.69, SD = 0.27$ ). This suggests that they can perform the skill excellently without supervision, demonstrating initiative and adaptability in problem-solving situations.

These findings align with the study of Hendrawan et al. (2022), which emphasized that students who engage in mise en place practices exhibit higher levels of satisfaction and skill acquisition. The structured approach of mise en place not only enhances skill development but also prepares students for the rigorous demands of professional kitchens, where organization and efficiency are essential.

Table 26. Level of Student’s Proficiency in Practical Skills in terms of Preparing a Variety of Sandwiches.

PERFORMANCE STANDARDS	MEAN	SD	DESCRIPTION
1. A variety of sandwiches are prepared based on appropriate techniques.	4.73	0.59	Outstanding
2. Suitable bases are selected from a range of bread types.	4.40	0.74	Outstanding
3. Sandwiches are produced using the correct ingredients to an acceptable enterprise standard.	4.47	0.74	Outstanding
4. Appropriate equipment is selected for toasting and heating according to enterprise procedures and the manufacturer's manual.	4.53	0.74	Outstanding
5. Sandwiches are prepared logically and sequentially within the required time frame and/or according to the customer's request.	4.40	0.74	Outstanding
6. Workplace safety and hygienic procedures are followed according to enterprise and legal requirements.	4.93	0.26	Outstanding
<b>OVERALL</b>	<b>4.58</b>	<b>0.22</b>	<b>Outstanding</b>
<b>PERFORMANCE LEVEL</b>	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.		

Legend:  
 4.30-5.00 Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.  
 3.40-4.29 Can perform the skill satisfactorily without supervision and with initiative and adaptability to problem situations.  
 2.60-3.39 Can perform the skill satisfactorily without assistance or supervision.  
 1.80-2.59 Can perform the skill satisfactorily but requires some assistance and/or supervision.  
 1.00-1.79 Can perform parts of the skill satisfactorily but requires considerable assistance and/or supervision.

Table 26 illustrates the level of students’ proficiency in practical skills in terms of preparing a variety of sandwiches.

With the highest mean score of (M = 4.93, SD = 0.23), students demonstrated outstanding performance in following workplace safety and hygienic procedures according to enterprise and legal requirements. Meanwhile, the lowest mean score (M = 4.40, SD = 0.74) was observed in students' performance in selecting suitable bases from a range of bread types and preparing sandwiches logically and sequentially within the required time frame or according to the customer’s request. However, this aspect was still rated as outstanding.

Overall, the students' performance level was outstanding, as indicated by the overall mean score of (M = 4.58, SD = 0.22). This explains that they can perform the skill excellently without supervision, demonstrating initiative and adaptability in problem-solving situations.

Table 27. Level of Student’s Proficiency in Practical Skills in terms of Presenting a Variety of Sandwiches.

PERFORMANCE STANDARDS	MEAN	SD	DESCRIPTION
Sandwiches are presented hygienically, logically, and sequentially within the required timeframe.	4.93	0.26	Outstanding
Sandwiches are presented attractively using suitable garnishes, condiments, and service wares.	4.80	0.56	Outstanding
Factors in plating are observed in presenting sandwiches.	4.53	0.64	Outstanding
Manifests apparent understanding of the step-by-step procedure.	4.80	0.41	Outstanding
Listed ingredients that were suitable to the dish and followed standard content.	4.80	0.41	Outstanding
Sandwiches are orderly and follow the procedure correctly in the safety preparation.	4.80	0.41	Outstanding
<b>OVERALL</b>	<b>4.78</b>	<b>0.19</b>	<b>Outstanding</b>
<b>PERFORMANCE LEVEL</b>	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.		

Legend:  
 4.30-5.00 Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.  
 3.40-4.29 Can perform the skill satisfactorily without supervision and with initiative and adaptability to problem situations.  
 2.60-3.39 Can perform the skill satisfactorily without assistance or supervision.  
 1.80-2.59 Can perform the skill satisfactorily but requires some assistance and/or supervision.  
 1.00-1.79 Can perform parts of the skill satisfactorily but requires considerable assistance and/or supervision.

The table above presents the level of students’ proficiency in practical skills in terms of presenting a variety of sandwiches.

With the highest mean score of (M = 4.93, SD = 0.26), students demonstrated outstanding performance in presenting sandwiches hygienically, logically, and sequentially within the required timeframe. Meanwhile, the lowest mean score (M = 4.53, SD = 0.64) was observed in students' ability to consider plating factors when presenting sandwiches. However, this aspect was still rated as outstanding.

Overall, the students’ performance level was outstanding, as evidenced by the overall mean score of (M = 4.78, SD = 0.19). This suggests that they can perform the skill excellently without supervision, demonstrating initiative and adaptability in problem-solving situations.

Hansen et al. (2019) emphasized that sandwich-making fosters critical skills such as knife handling, kitchen safety, and food preparation techniques. These skills are essential for building confidence in the kitchen and are positively associated with healthier eating habits among students. Similarly, Hu et al. (2016) highlighted that the ability to create a variety of sandwiches

encourages students to experiment with different ingredients, enhancing their culinary creativity and innovative competencies.

Febriana (2019) further emphasized the importance of integrating life skills into culinary education, as it prepares students for real-world scenarios where they must make informed food choices and manage their time effectively in the kitchen.

Table 28. Level of Student’s Proficiency in Practical Skills in terms of Store Sandwiches.

PERFORMANCE STANDARDS	MEAN	SD	DESCRIPTION
Followed safety and hygienic handling of food ingredients and dishes.	4.60	0.74	Outstanding
Followed instructions properly.	4.73	0.59	Outstanding
Quality trimmings and other leftovers are utilized where and when appropriate.	4.73	0.46	Outstanding
Sandwiches are stored hygienically at the proper temperature, considering the factor specified by the enterprise.	4.80	0.56	Outstanding
Sandwiches are kept in appropriate conditions to maintain freshness and quality.	4.53	0.74	Outstanding
Work completed ahead of time.	4.93	0.26	Outstanding
<b>OVERALL</b>	4.72	0.22	Outstanding
<b>OVERALL PRACTICAL SKILL</b>	4.69	0.14	Outstanding
<b>PERFORMANCE LEVEL</b>	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.		

Legend:

4.30-5.00	Can perform the skill excellently without supervision and with initiative and adaptability to problem situations.
3.40-4.29	Can perform the skill satisfactorily without supervision and with initiative and adaptability to problem situations.
2.60-3.39	Can perform the skill satisfactorily without assistance or supervision.
1.80-2.59	Can perform the skill satisfactorily but requires some assistance and/or supervision.
1.00-1.79	Can perform parts of the skill satisfactorily but requires considerable assistance and/or supervision.

Table 28 presents the level of students’ proficiency in practical skills in terms of storing sandwiches.

With the highest mean score of (M = 4.93, SD = 0.26), students demonstrated outstanding performance in completing their work ahead of time. Meanwhile, the lowest mean score (M = 4.53, SD = 0.74) was recorded in students' ability to store sandwiches in appropriate conditions to maintain freshness and quality. However, this aspect was still rated as outstanding.

Overall, the students’ performance level was outstanding, as evidenced by the overall mean score of (M = 4.72, SD = 0.22). This indicates that they can perform the skill excellently without supervision, demonstrating initiative and adaptability in problem-solving situations. The overall practical skills mean score of 4.69 further

confirms their ability to execute the skill proficiently under these conditions.

Mizielińska et al. (2020) emphasized that sandwich packaging plays a critical role in maintaining freshness and quality. Their study on multilayer sandwich packaging demonstrated that it can significantly enhance the freshness of bread, thereby improving the overall quality of the sandwich.

Table 29. Correlation Analysis of Learning Material and Students’ Proficiency in Practical Skills.

	r	p-value
<b>Level of Acceptability of Learning Material</b>	0.22	0.43*
<b>Students’ Proficiency in Practical Skills</b>		

\*not significant at .05 level of significance

Pearson correlation values indicate that there is no significant relationship between the level of proficiency in practical skills and the level of acceptability of learning material attributes in Specialized Cookery among Grade 9 students.

This further implies that the evaluation of learning materials does not necessarily impact students' performance in accomplishing their practical skills. A high assessment of the learning material does not guarantee high student performance, and similarly, lower-rated materials do not necessarily result in poor practical skill execution.

#### IV. CONCLUSIONS

This chapter presents the summary of findings, conclusion, and recommendations.

#### Summary of Findings

This study employed the descriptive research method to develop and validate a cookery pocketbook for teaching Technology and Livelihood Education (TLE). The pocketbook was evaluated by five (5) TLE teachers and two (2) Master Teacher experts from Salabaca National High School.

The study aimed to answer the following questions: (1) What is the level of learning material components in terms of learning objectives, content, organization, presentation, and assessment? (2) What is the level of learning

material attributes in terms of usability, adaptability, consistency, self-instructional quality, and aesthetic value? (3) What is the level of students' proficiency in practical skills in terms of performing *mise en place*, preparing a variety of sandwiches, presenting a variety of sandwiches, and storing sandwiches? (4) Is there a significant relationship between the level of proficiency in practical skills and the learning material attributes of Specialized Cookery among Grade 9 students?

A questionnaire was used to validate the cookery pocketbook. Weighted mean and standard deviation were applied to determine: the level of learning material components, including learning objectives, content, activities, and assessment; the level of learning material attributes in terms of adaptability, appropriateness, design, self-instructional quality, usability, and validity; the level of students' proficiency in practical skills in Specialized Cookery, based on their third-quarter grades in the TLE subject; and the relationship between the evaluation of the cookery pocketbook and students' proficiency, as assessed by TLE teachers, experts, and student respondents.

The significant findings of the study are the following:

1. The learning material components—learning objectives, content, organization, presentation, and assessment—were all rated as extremely acceptable.
2. The learning material attributes—usability, adaptability, consistency, self-instructional quality, and aesthetic value—were also found to be extremely acceptable.
3. Students' proficiency in practical skills, including performing *mise en place*, preparing a variety of sandwiches, presenting a variety of sandwiches, and storing sandwiches, was evaluated as extremely acceptable, indicating that they could perform these skills excellently, without supervision, and with initiative and adaptability to problem situations.
4. The correlation analysis revealed that there is no significant relationship between students' proficiency in practical skills and the acceptability of learning material attributes. This suggests that the evaluation of learning materials does not necessarily

influence students' performance in practical tasks. A high assessment of learning materials does not guarantee high student performance, and vice versa.

### Conclusion

Based on the findings above, the study has drawn the following conclusion:

The learning material attributes—usability, adaptability, consistency, self-instructional quality, and aesthetic value—have no significant relationship with students' proficiency in practical skills or the level of acceptability of learning material attributes in Specialized Cookery among Grade 9 students. This implies that the evaluation of learning materials may not directly influence students' performance in practical assessments. A high assessment of learning material components does not necessarily guarantee high student performance, and vice versa. Thus, the alternative hypothesis is accepted.

### Recommendations

Based on the conclusions drawn from the findings, the following recommendations are proposed:

1. Salabaca National High School, where the researcher is employed, may request school administrators to adopt and utilize the cookery pocketbook as a centralized learning material for Cookery across the entire school system.
2. Technology and Livelihood Education (TLE) teachers may develop additional instructional learning materials tailored to the needs and interests of students, integrating them into other areas of TLE.
3. TLE teachers are encouraged to modify, enhance, and reconstruct instructional learning materials to meet the evolving demands of education.
4. TLE teachers may attend seminars, skills enhancement training, and workshops related to their field of specialization to acquire new knowledge and techniques that can improve students' practical skills. Hands-on practice, skills development, and real-life application should be emphasized. Additionally, TLE teachers may develop well-designed and updated instructional

learning materials, focusing on background information that aligns with students' needs and interests to enhance their overall performance.

#### ACKNOWLEDGMENT

The researcher would like to thank all those who have helped and supported in this research, especially the school principal, master teachers TLE teachers and specialized cookery students in Grade 9 of Salabaca National High School in Salabaca, Esperanza, Sultan Kudarat.

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