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Level of Awareness and Competency of Grade 11 Students in Bread and Pastry Production: Basis for Lesson Exemplar

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Abstract

Aim: This study investigated the awareness and competency levels of Grade 11 Technical-Vocational-Livelihood (TVL) students on the use of kitchen utensils and equipment, as well as their baking knowledge and skills in Bread and Pastry Production.

Methodology: This descriptive-comparative-developmental study was conducted in two public schools offering the TVL-Home Economics strand within the Schools Division of Candon City, Ilocos Sur.

Results: The study revealed the following results: Awareness of Kitchen Utensils and Equipment: both schools received a "Very High (VH)" rating with an overall mean of 4.47, indicating a high proficiency in using necessary baking equipment. On the other hand, Competency Level in Baking: both schools achieved a grand mean of 79.55, corresponding to a "Basic Competency (BC)" level. The study identified thirteen least learned competencies related to baking knowledge and skills, which are essential for each quarter's curriculum. These results aligned with the lowest levels of awareness in baking knowledge according to the respondents.

Conclusion: To address these gaps, a Lesson Exemplar was developed, which obtained a "Very High Validity (VHV)" rating with an overall mean of 4.52 for language and content validity. This exemplar is designed to improve the least mastered skills and facilitate the learning process effectively. Therefore, it is recommended for use to enhance the competencies of learners in Bread and Pastry Production.

Keywords: Baking utensils and equipment, Baking knowledge, Competency Level, Lesson Exemplar.

INTRODUCTION

K-12 education is a comprehensive curriculum that aims to enhance the education system in the Philippines. The curriculum offers various tracks and strands that cater to the different interests and aspirations of students, one of which is the Technical-Vocational-Livelihood (TVL) strand. The TVL strand aims to provide students with the necessary skills and knowledge to prepare them for work or entrepreneurship.

Cookery and Bread and Pastry are among the subjects in the TVL strand that focus on developing students' skills in the food industry. These subjects are significant because they provide students with a foundation in food preparation, presentation, and customer service, which are essential in running a food business (Alarcon, et al. (2024). The curriculum aims to produce graduates who can take on roles as food entrepreneurs, managers, chefs, or bakers (DepEd Order No. 21, series 2019).

The Bread and Pastry Production NC II is a TESDA-accredited short course designed to impart baking knowledge and skills. It covers the preparation of cakes, bread, and pastries to industry standards while emphasizing cleanliness and food safety practices. The program's objective is to cultivate graduates capable of thriving in hotel industry roles and other food-related ventures.

It is essential to note that core competencies in Bread and Pastry Production in terms of preparing and producing bakery products, preparing and producing pastry, preparing and presenting gateaux, tortes and cakes, preparing and displaying petit fours (TESDA, 2004) should be mastered and practice by students of TVL – Home Economics Strand along with their awareness on the utilization of kitchen utensils and equipment. Students' awareness in utilizing these kitchen utensils and equipment enable them to be responsible and accountable for their actions in the laboratory which they can carry with them throughout their career in the food industry. Awareness of

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the proper utilization also prevent accidents and injuries that may arise from the use of kitchen equipment and utensils. Awareness of its proper use also instills discipline and responsibility among students. Lack of awareness in the use of kitchen utensils and equipment poses a significant risk to students' safety because it relates also to awareness of kitchen laboratory rules which inadequacy or insufficient knowledge can result in accidents, injuries, and even fatalities (World Health Organization, 2015). Thus, awareness on the utilization of kitchen utensils and equipment and understanding and following laboratory rules are integral components of developing competence in Bread and Pastry Production. These not only prevent accidents and food contamination but also establish a foundation for the students to build upon their technical skills. The application of these awareness is essential and becomes a skill that students carry with them throughout their career in the food industry. The relevance of students' competence in Bread and pastry is underscored by the need for the meticulous attention to detail and adherence to awareness in proper utilization of kitchen utensils and equipment. Ameera et al. (2022) on their study, recommended the need for more hands-on training and continuous education to improve students' awareness and skills in utilization of kitchen utensils and equipment along with food safety practices and their performance in bread and pastry production.

Meanwhile, a study by Rodil and Briones (2022) found that core competencies in Bread and Pastry Production in terms of preparing and producing bakery products, preparing and producing pastry, preparing and presenting gateaux, tortes and cakes, preparing and displaying petit fours were significantly correlated with acquired analytical skills in bread and pastry production. In accordance with the context in the City Division of Candon, it has been observed by teachers that TVL students struggle with the zone of critical thinking, particularly in situational analysis. This is evident in their performance on diagnostic tests, quizzes, and performance tasks. The students may be able to memorize the kitchen utensils and equipment, but they struggle when asked to apply their knowledge to real-world situations like when they are immersed in a workplace. Further, when it comes to the development of competencies in the TVL strand, it is not just about cognitive domains, but also about the improvement of the quality of human resources that can compete and have concern for the environment to support sustainable development. It is important for TVL teachers to develop not only retention skills but also 21st-century skills such as communication, collaboration, critical thinking, and creativity (Rodil & Briones, 2022).

Proficiency in these skills is crucial for the application of baking knowledge, encompassing activities like ingredient selection, baking processes, safety precautions, and performance knowledge. Baking knowledge entails sanitizing and maintaining cleanliness of premises and equipment, as well as preparing and cooking various baking products, and selecting suitable ingredients (Mananita, 2021).

Therefore, there is a need to examine the level of awareness of TVL students in utilizing kitchen utensils and equipment as well as baking knowledge in bread and pastry production. It also involves the assessment of the competency level of learners as regards to bread and pastry production.

Objectives

This division-wide research aimed to determine the level of competency of grade 11 TVL students in Bread and Pastry Production in the two public secondary schools of Candon City Division that offer TVL track that specializes on Home Economics for the school year 2023-2024 as the basis for the proposed Lesson Exemplar.

Specifically, it answered the following:

1. What is the level of awareness of Grade 11 TVL students on the utilization of kitchen utensils and equipment and baking knowledge?
2. Is there a significant difference in the level of awareness of Grade 11 TVL students on the utilization of kitchen utensils and equipment between School A and School B?
3. What is the competency level of Grade11 TVL students in Bread and Pastry Production?
4. Is there a significant difference in the competency level of Grade 11 TVL Students in Bread and Pastry Production between School A and School B?
5. Is there a significant correlation between competency level and awareness level of Grade 11 TVL students on the utilization of kitchen utensils and equipment and baking knowledge?
6. What are the least mastered competencies of Grade 11 TVL students in Bread and Pastry Production Mastery Analysis?
7. What learning material can be developed to improve the level of competency of Grade 11 TVL students?
8. What is the level of validity of the proposed learning material in terms of:
   a. Language
   b. Content

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Hypothesis

Given the stated research problem, the following hypotheses were tested on 0.05 level of significance:

Hypothesis 1: There is no significant difference in the level of awareness of TVL Grade 11 students on the utilization of kitchen utensils, equipment and baking knowledge between School A and School B.
Hypothesis 2:There is no significant difference in the level of competency of Grade 11 TVL students in bread and pastry production between School A and School B.
Hypothesis 3: There is no significant correlation between competency level and awareness level of Grade 11 TVL students on the utilization of kitchen utensils and equipment and baking knowledge.

METHODS

Research Design

This study employed a descriptive-comparative-developmental research approach. The purpose of this descriptive research is to describe the level of awareness of TVL students in the two public secondary senior high schools in the city division of Candon as regards the utilization of utensils, equipment and baking knowledge and the to determine their competency in Bread and Pastry Production.

In addition, comparative research design is used, which essentially compares two groups to draw a conclusion about them.

Population and Sampling

The respondents of this study were the grade 11 students in the two public secondary schools of the city division of Candon that offer TVL track whose specialization is Home Economics for the school year 2023-2024. A pre-survey of the population of TVL students in the schools was conducted. The pre-survey was aided by a phone consultation with the administrative person in charge of records.

Instrument

A researcher-created questionnaire was used to collect data necessary for the study's completion. A questionnaire on determining the level of awareness of TVL students on utilization of kitchen utensils, equipment and baking knowledge in Bread and Pastry Production divided into two parts and and Mastery analysis was serves as a method for collecting data to determine a student's competency level. Since it is a researcher-made guide, it was subjected for validity by three experts..

Data Collection

Data was gathered with the assistance of key division personnel. The researcher first sought permission from the Superintendent of Schools to distribute the questionnaires. After approval of the Superintendent, the researcher informs the Principals and School Heads of the objectives for clarity. Similarly, the principals and teachers meet to discuss the study's objectives and set the course of action.

Treatment of Data

To give accurate analysis on the data tabulated in the google sheets, the following statistical methods were used:

For Problem 1, weighted mean was employed to determine the level of awareness on the utilization of kitchen utensils and equipment and baking knowledge of TVL students in bread and pastry production.

For Problem 3, weighted mean was utilized to determine the level of competency of Grade 11 TVL students in Bread and Pastry Production.

For Problem 5, Mean percentage Score was used to determine the least mastered competency in Bread and Pastry Production.

For problem 2 and 4, t-test for independent samples was used to determine if significant difference exists on the level of awareness of TVL students in the utilization of kitchen utensils, equipment and baking knowledge and level of competency in bread and pastry production between STNHS and CCHS.

For problem 7, mean was used to determine the validity of the lesson exemplar.

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Ethical Considarations

The researcher ensured that all research protocols involving ethics in research were complied with for the protection of all people and institutions involved in the conduct of the study.

RESULTS and DISCUSSION

The analyses and interpretations include the descriptive-comparative evaluation results of the level of awareness on the utilization of kitchen utensils and equipment and baking skills and the level of competency on Bread and Pastry Production and least mastered skills of two public secondary schools of Candon City Division which offer TVL track that specializes on Home Economics for the school year 2023-2024. It also includes the level of validity of the proposed material as the output of the study.

Table 1a presents the mean and descriptive rating of each indicator on the over-all level of awareness on the utilization of kitchen utensils, equipment and baking knowledge responses on the utilization of kitchen equipment responded by both School A and B learner- respondents.

Table 1A: Level of Awareness on the Utilization of Kitchen Utensils, Utilization of Kitchen Equipment and Baking Knowledge.

Level of awareness on the utilization of kitchen utensils						
Indicators	**School A**	**DR**	**School B**	**DR**	**Mean**	**DR**
I accurately measure ingredients using appropriate tools, such as measuring cups and spoons.	4.77	VH	4.39	VH	4.55	VH
I use clean and sanitized utensils and equipment when working with dough and pastry.	4.86	VH	4.42	VH	4.60	VH
I use separate bowls, baking trays or pans for raw and ready-to-eat products to prevent cross-contamination.	4.86	VH	4.39	VH	4.59	VH
I wear gloves when handling dough and pastry to prevent contamination.	4.41	VH	4.29	VH	4.34	VH
I monitor the temperature of ingredients, particularly perishable ones like eggs and dairy, to ensure they remain safe for use.	4.82	VH	4.42	VH	4.59	VH
Overall	**4.74**	**VH**	**4.38**	**VH**	**4.53**	**VH**

Level of awareness on the utilization of kitchen equipment						
Indicators	**School A**	**DR**	**School B**	**DR**	**Mean**	**DR**
I use the appropriate mixing speed and duration for different types of dough and batter.	4.41	VH	4.26	VH	4.32	VH
I am knowledgeable about the proper use and maintenance of baking tools and equipment, such as mixers, ovens, and pastry brushes.	4.5	VH	4.43	VH	4.46	VH
I preheat the oven to the recommended temperature before baking to ensure even cooking and proper food safety.	4.73	VH	4.45	VH	4.57	VH
I regularly clean and maintain equipment like mixers, ovens, and pastry brushes to prevent the buildup of bacteria.	4.77	VH	4.32	VH	4.51	VH
Overall	**4.60**	**VH**	**4.37**	**VH**	**4.47**	**VH**

Level of awareness on baking knowledge						
Indicators	**School**	**DR**	**School B**	**DR**	**Mean**	**DR**

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I understand the difference between volume and weight measurements in baking and use them accordingly.	4.55	VH	4.00	H	4.23	VH
I am familiar with common baking ingredients and their functions in recipes.	4.36	VH	4.26	VH	4.30	VH
I follow recipes carefully to ensure the correct order of mixing ingredients.	4.73	VH	4.77	VH	4.75	VH
I am proficient in using various mixing methods, such as creaming, folding, and whipping.	4.14	H	4.10	H	4.12	H
I rotate baking trays or pans during the baking process to ensure uniform baking and minimize the risk of undercooked areas.	4.36	VH	4.10	H	4.21	VH
I understand the difference between volume and weight measurements in baking and use them accordingly.	4.41	VH	4.26	VH	4.15	H
I wash my hands thoroughly before handling baking ingredients.	4.95	VH	4.65	VH	4.77	VH
I follow proper storage procedures for ingredients, such as keeping perishable items refrigerated and dry ingredients sealed.	4.86	VH	4.55	VH	4.68	VH
I sanitize work surfaces before and after working with dough and pastry.	4.59	VH	4.48	VH	4.53	VH
I follow strict hygiene practices, such as tying back hair and avoiding touching my face while working with dough and pastry.	4.59	VH	4.58	VH	4.58	VH
I practice CLAYGO (Clean As You Go) in the kitchen, ensuring that I clean up spills, utensils, and work surfaces promptly during baking to maintain a clean and organized workspace.	4.55	VH	4.68	VH	4.63	VH
Overall	**4.55**	**VH**	**4.40**	**VH**	**4.45**	**VH**
Overall Mean	**4.61**	**VH**	**4.39**	**VH**	**4.48**	**VH**

Legend:

4.20-5.00	*Very High (VH)*
4.40-4.19	*High(H)*
2.60-3.39	*Moderate(M)*
1.80-2.59	*Low(L)*
1.00-1.79	*Very Low (VL)*

In the over-all level of awareness on the *utilization of kitchen utensils and equipment and baking knowledge,* the data show that the leaner-respondents in both school A and B achieved a "Very High (VH)" with an over-all mean of 4.48. Result also shows that school A had a higher mean of 4.61 compared to school B with a mean of 4.39. This result indicated that learners are aware on how to use utensils and equipment for baking as well as attained expected baking skills knowledge necessary to prepare and produce baking products.

This data explains that awareness on the utilization of kitchen utensils and equipment and baking knowledge are very important in the quality of instruction in Bread and Pastry Production specialization in Technical Vocational Livelihood. Akinfolarin, Ajayi and Oloruntegbe (2012) revealed that most of the required resources in Vocational and Technical Education were available and adequate thus it explains why respondents got a very high awareness in this on the utilization of kitchen utensils and equipment and baking knowledge because the adequacy of resources such as utensils and equipment in Bread and Pastry Production paved the way to the quality instruction particularly in the development of skills in Technical Vocational Livelihood specializations.

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It is also notable that the highest indicator obtained by both school A and B is *"I wash my hands thoroughly before handling baking ingredients"* with an over-all mean of 4.77, school A got a highest mean of 4.95 on this indicator and school B got a mean of 4.67. In a study of Dewi et al. (2023) one of the factors causing bakery product defects were human factors; thus, awareness of washing hands thoroughly before preparing baking ingredients and baking is a must to achieve the target of zero defects in the bakery products.

On the other hand, data also indicated that both schools gained the lowest mean of 4.12 on "*I am proficient in using various mixing methods, such as creaming, folding, and whipping"* indicator. School A is consistent to have indicated that this indicator got a lowest mean of 4.14. In contrast school B indicated a different result on its highest and lowest indicators, the highest indicator which school B obtained is *"I follow recipes carefully to ensure the correct order of mixing ingredients"* with a mean of 4.77 and the lowest indicator, *"I understand the difference between volume and weight measurements in baking and use them accordingly"* with a mean of 4.00. The data shows that the highest and lowest level of awareness of the respondents refer to the indicators under baking knowledge awareness level. According to Rodil & Briones (2022), the baking knowledge skills are utilized in the bread and pastry pro]duction core competencies are: preparing and producing bakery products, preparing and producing pastry products, preparing and presenting gateaux, tortes, and cakes and presenting and displaying petit fours. These are proven to be significantly related to acquired skills in terms of analytical, conceptual, communication, interpersonal and leadership, thus; more lectures and hands-on classes in bread and pastry production should be required in Technical Vocational Livelihood specializations to ensure the quality practical application of the core competencies are being recommended by Rodil & Briones (2022).

Table 2: Level of Awareness Difference on the Utilization of Kitchen Utensils, Equipment and Baking Knowledge between School A and School B

GROUPS	Mean	SD	T-Value	P-Value	Interpretation
School A	4.611	0.21923	5.39343	0.000033	Significant
School B	4.3755	0.21934			
Difference	0.2355				

Legend: T-test (Two-tailed) at 0.05

The table provides statistical data comparing the awareness on the utilization of kitchen utensils, equipment, and baking knowledge between school A and School B. As to the mean, school A has a higher mean of 4.611 compared to School B which has a mean of 4.3755. This data suggests that respondents from school A have a higher level of awareness regarding the utilization of kitchen utensils, equipment, and baking knowledge compared to respondents from school B. This is being quantified by T-Value of 5.39343 which proves that respondents from school A have significant higher awareness scores than school B. Furthermore, the computed P-Value is 0.000033 which indicates statistical significance. Thus, based on the T-Value And P-Value, it can be concluded that the awareness level on the utilization of kitchen utensils, equipment and baking knowledge between school A and school B is statistically significant. This result suggests that there is a substantial difference in awareness levels between the two groups regarding the utilization of kitchen utensils, equipment, and baking knowledge, with school A showing a significantly higher level of awareness compared to school B. According to Okillan Asianut (2021), hands-on experiences in the teaching and learning of Home Economics formidable effect in enhancing learning of practical skills among students. Thus, more hands-on experiences in the teaching Bread and Pastry Production should be implemented by TVL teachers in School B so that learners will have more practice in the utilization of kitchen utensils and equipment. Further, Hamidu, et al. (2014) mentioned that laboratory experiences enhance learners understanding of concepts and applications as well as problem solving abilities and motivation.

Table 3A: Level of Competency in Preparing and Producing Bakery Products of School A and School B

Indicators	School A	DR	School B	DR	Mean	DR
Learning Competencies						
1.Select, measure and weigh required ingredients according to recipe or production requirements	75	BC	80	MC	77.50	BC
2. Prepare a variety of bakery products according	72	NI	75	BC	73.50	NI

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to standard mixing procedures/ formulation/ recipes and desired product characteristics						
3.Use appropriate equipment according to require bakery products and standard operating procedur	83	MC	85	C	84.00	MC
4. Bake bakery products according to techniques and appropriate conditions	83	MC	79	BC	81.00	MC
5. Select required oven temperature to bake good in accordance with the desired characteristics, standards recipe specifications	81	MC	82	MC	81.50	MC
Overall	**78.80**	**SC**	**80.20**	**MC**	**79.50**	**BC**

Legend:
90 and above - Highly Competent (HC)
85- 89.99 - Competent (C)
80 – 84.99 - Moderately Competent (MC)
75- 79.99 - Slightly Competency (SC)
74.99 and below - Needs Improvement (NI)

Table 3A shows that the mastery level of both School A and B respondents is Basic Competency (BC) with a mean rating of 79.50 during the First Quarter of S.Y. 2023-2024. School A got a mean of 78.80 which is Basic Competency (BC). On the other hand, School B got a mean of 80.20 which is Moderately Competent (MC). Both schools got highest mastery on number 3 indicator, *"Use appropriate equipment according to required bakery products and standard operating procedures",* with a mean of 84 which means Moderately Competent (MC). According to the findings of Manalita (2021) imply tools and equipment are necessary to the performance of the students in Technical Vocational Livelihood Education specialized subjects.

On the contrary, the lowest mastery level of both schools got a mean of 73.50 which is Needs Improvement (NI) on indicator number 2 which is "*Prepare a variety of bakery products according to standard mixing procedures/ formulation/ recipes and desired product characteristics"*. These result on the lowest mastery level in Bread and Pastry Production is consistent with the result in the level awareness "I am proficient in using various mixing methods, such as creaming, folding, and whipping" which got the lowest mean among all indicators. Thus, this result supports the recommendation of Rodil & Briones (2022) "*to enforce more lectures and practical classes in bread and pastry production and other Technical Vocational Livelihood specialization to ensure quality of practical application*".

Table 3B: Level of Competency in Preparing and Producing Bakery Products of School A and School B.

Indicators	School A	DR	School B	DR	Mean	DR
Learning Competencies						
1. Select, measure and weigh required ingredients according to recipe or production requirements and established standards and procedures	74	NI	83	MC	78.50	BC
2. Prepared a variety of pastry products according to standard mixing procedures/formulation/recipes and desired product characteristics	72	NI	80	MC	76.00	BC
3. Use appropriate equipment according to required pastry products and standard operating procedures	83	MC	80	MC	81.50	MC
4. Bake pastry products according to techniques and appropriate conditions, and enterprise requirement and standards	83	MC	79	BC	81.00	MC
5. Select required oven temperature to bake goods in accordance with the desired characteristics, standards recipe specifications and enterprise practices	81	MC	80	MC	80.50	MC
6. Prepare a variety of fillings and coating/icing, glazes	78	BC	80	MC	79.00	FM

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and decorations for pastry products according to standard recipe, enterprise standards and/or customer preferences						
7. Fill and decorate pastry products, where required and appropriate, in accordance with standard recipes and/or enterprise standards and customer preferences	82	MC	85	C	83.50	MC
8. Finish pastry products according to desired products characteristics	74	NI	76	BC	75.00	BC
9. Present baked pastry products according to established standards and procedures	72	NI	79	BC	75.50	BC
Overall	**77.67**	**BC**	**80.22**	**MC**	**78.94**	**BC**

Legend:
90 and above - Highly Competent (HC)
85- 89.99 - Competent (C)
80 – 84.99 - Moderately Competent (MC)
75- 79.99 - Slightly Competency (SC)
74.99 and below - Needs Improvement (NI)

Table 3B shows that the mastery level of both School A and B respondents is Basic Competency(BC) with a mean rating of 78.94 during the Second Quarter of S.Y. 2023-2024. School A got a mean of 77.67 which is Basic Competency (BC). On the other hand, School B got a mean of 80.22 which is Moderately Competent (MC). Both schools got highest mastery on number 7 indicator, "*Fill and decorate pastry products, where required and appropriate, in accordance with standard recipes and/or enterprise standards and customer preferences*", with a mean of 83.50 which means Moderately Competent (MC). On the contrary, the lowest mastery level of both schools got a mean of 75 which is Basic Competency (BC) on indicator number 8 which is *"Finish pastry products according to desired products characteristics"*. This result revealed that learners obtained the highest and lowest levels of competency on the production or finished pastry products. The highest level has to do with the decorations of the finished bread and pastry products and the lowest level has specified on the desired pastry product characteristics. According to Dewi et al. (2023), to achieve the target of zero defects baking production, regular training and supervision should be done.

Table 3C: Level of Competency in Preparing and Presenting Gateaux, Tortes and Cakes of School A and School B

Indicators	School A	DR	School B	DR	Mean	DR
1. Select, measure and weigh ingredients according to recipe requirements, enterprise practice and customer practices	82	MC	85	C	83.50	MC
2. Select required oven temperature to bake goods in accordance with desired characteristics, standard recipe specifications and enterprise practices	83	MC	80	MC	81.50	MC
3. Prepare sponges and cakes according to recipe specifications, techniques and conditions and desired product characteristics	80	MC	79	BC	79.50	BC
4. Use appropriate equipment according to required pastry and bakery products and standard operating procedures	82	MC	83	MC	82.50	MC
5. Cool sponges and cakes according according to established standards and procedures	76	BC	80	MC	78.00	BC
6. Prepare and select fillings in acccordance with required consisitency and appropriate flavors	79	BC	80	MC	79.50	BC
7. Fill and assemble slice or layer sponges and cakes	83	MC	82	MC	82.50	MC

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according to standard recipe specifications, enterprise practice and customer preferences						
8. Select coating and sidings according to the product characteristics and required recipe specification	77	BC	77	BC	77.00	BC
9. Decorate sponges and cakes suited to the product and occasion and in accordance with standard recipes and enterprise practices	80	MC	84	MC	82.00	MC
10. Use suitable icings and decorations according to standard recipes and/or enterprise standards and customer preferences	76	BC	84	MC	80.00	MC
11. Present cakes in accordance with customer's expectation	84	MC	79	BC	81.50	MC
12. Select and use equipment in accordance with service requirements	85	C	81	MC	83.00	MC
13. Maintain product freshness, appearance and eating qualities in accordance with the established standards and procedures	81	MC	82	MC	81.50	MC
14. Marked cakes or cut portion controlled to minimize wastage and in accordance with enterprise specifications and customer preference	82	MC	80	MC	81.00	MC
15. Store cakes in accordance with establishment's standards and procedures	80	MC	79	BC	79.50	BC
16. Identify storage methods in accordance with product specifications and established standards and procedures	79	BC	83	MC	81.00	MC
Overall	**80.56**	**MC**	**81.13**	**MC**	**80.84**	**MC**

Legend:
90 and above - Highly Competent (HC)
85- 89.99 - Competent (C)
80 – 84.99 - Moderately Competent (MC)
75- 79.99 - Slightly Competency (SC)
74.99 and below - Needs Improvement (NI)

Table 3C shows that the mastery level of both School A and B respondents is Moderately Competent (MC) with a mean rating of 80.84 during the Third Quarter of S.Y. 2023-2024. School A got a mean of 80.56 which is Moderately Competent (MC). On the other hand, School B got a mean of 81.13 which is also a Moderately Competent (MC). Both schools got highest mastery on number 1 indicator, "*Select, measure and weigh ingredients according to recipe requirements, enterprise practice and customer practices*", with a mean of 83.50 which means Moderately Competent (MC). On the contrary, the lowest mastery level of both schools got a mean of 77 which is Basic Competency (BC) on indicator number 8 which is *"Select coating and sidings according to the product characteristics and required recipe specification"*. Based on the result of quarter 3 mastery level, respondents obtained highest mastery level on the baking preparation and lowest competency on the production or finished pastry products. To assure the quality bread and pastry products, preparation skill is important (Villacerra & Basal, 2022). On the other hand, to produce high quality baked goods, proper ingredient selection, equipment and tool use, mixing techniques, and baking techniques should all be followed during the production process (Lupien, 2005).

Table 3D: Level of Competency in Preparing and Displaying Petit Fours, and Presenting Desserts of School A and School B

Indicators	School A	DR	School B	DR	Mean	DR
1. Prepare, cut and assemble sponges and bases	80	MC	80	MC	80.00	MC

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according to standard recipes and enterprise requirements and practices						
2. Prepare fillings with the required flavors and consistency	74	NI	76	BC	75.00	BC
3. Prepare fondant icing following required temperature and standard procedure	74	NI	74	NI	74.00	NI
4. Design and use decorations in accordance with establishment standards and procedures	80	MC	83	MC	81.50	MC
5. Bake and decorate a selection of small choux paste shapes in accordance with established standards and procedures	82	MC	74	NI	78.00	BC
6. Prepare and blend baked sweet paste in accordance with establishment standards and procedures	81	MC	80	MC	80.50	MC
7. Prepare and use fillings the required flavors and correct consistency	79	BC	76	BC	77.50	BC
8. Use garnishes, glazes and finished in accordance with established standards and procedures	74	NI	83	MC	78.50	BC
9. Flavor and shape Quality marzipan to produce mini-sized fruits in accordance with enterprise and client requirements	82	MC	76	BC	79.00	BC
10. Coat Marzipan fruits to preserve desired eating characteristics and softened with egg whites, piped into shapes and sealed/browned with applied heat, according to enterprise practice	74	NI	74	NI	74.00	NI
11. Select and coat fresh fruits/fruit segments with pale amber-colored caramel or glazed or any coating specified by the enterprise	74	NI	73	NI	73.50	NI
12. Fill sandwich dried fruits or nuts with flavored marzipan and coated with pale amber-colored caramel according to specifications and enterprise standards	80	MC	83	MC	81.50	MC
13. Select and prepare appropriate receptacles for petits fours	79	NI	82	MC	80.50	MC
14. Display petits fours creatively to enhance customer appeal	83	MC	82	MC	82.50	MC
15. Bake and decorate a selection of small choux paste shapes in accordance with established standards and procedures	80	MC	77	NI	78.50	NI
16. Package petits fours in accordance with established standards and proceduress	80	MC	74	NI	77.00	NI
17. Portion and present desserts according to product items, occasion and enterprise standards and procedures	83	MC	83	MC	83.00	MC
18. Plate and decorate desserts in accordance with enterprise standards and procedures	83	MC	78	NI	80.50	MC
19. Plan and utilize dessert buffet services according to available facilities, equipment and customer/enterprise requirements	74	NI	83	MC	78.50	NI
20. Prepare and arrange variety of desserts in	80	MC	80	MC	80.00	MC

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accordance with enterprise standards and procedures						
21. Store desserts in accordance with the required temperature and customer's specifications.	81	MC	79	NI	80.00	MC
22. Package desserts in accordance with established standards and procedures	81	MC	80	MC	80.50	MC
Overall	**79.00**	**BC**	**78.64**	**BC**	**78.82**	**BC**

Legend:
90 and above - Highly Competent (HC)
85- 89.99 - Competent (C)
80 – 84.99 - Moderately Competent (MC)
75- 79.99 - Slightly Competency (SC)
74.99 and below - Needs Improvement (NI)

Table 3D shows that the mastery level of both School A and B respondents is Basic Competency (BC) with a mean rating of 78.82 during the Fourth Quarter of S.Y. 2023-2024. School A got a mean of 79 which Basic Competent (BC). On the other hand, School B got a mean of 78.64 which is also a Basic Competency (BC). Both schools got highest mastery on number 17 indicator, "Portion and present desserts according to product items, occasion and enterprise standards and procedures", with a mean of 83.00 which means Moderately Competent (MC). On the contrary, the lowest mastery level of both schools got a mean of 73.50 which is Needs Improvement (NI) on indicator number 11 which is "Select and coat fresh fruits/fruit segments with pale amber-colored caramel or glazed or any coating specified by the enterprise". It can be observed that respondents had consistently obtained the lowest level on the production or finished pastry products for three (3) quarters. According to Cargill (2020), the production of baked products means satisfying the demands of the market and with a continuing appetite for innovative and exciting products, consumers interest and reliance on baked goods are likely to persist. Thus, teachers should focus on enhancing the skills and mastery of the learners on production or finished pastry products. As to the over-all result of the mastery levels of the respondents, a grand mean of 79. 55 was obtained by both school A and B which means Basic Competency (BC) level from first to fourth quarters. School A got a grand mean of 79.26, lower compared to school B which got a 79.85 grand mean but both of them still got a Basic Competency (BC) level.

Table 4: Level of Competency Difference on the Bread and Pastry Production between School A and School B

GROUPS	Mean	SD	T-Value	P-Value	Interpretation
STNHS	79.25926	3.59342	-1.09446	0.2787	Not Significant
CCNHS	79.85185	3.10452			
Difference	-0.59259				

Legend: T-test (Two-tailed) at 0.05

The table above presents the mean both School A and B on the level of competency in bread and pastry production is quite similar with school A scoring slightly lower at 79.25926 compared to school B at 79.85185. It means that, both schools have similar competency levels in bread and pastry production. This is further proven by the result of the t-value for School B which is -1.09446, this suggests a slight difference in mean competency levels between school B and school A. Moreover, the p-value is 0.2787 which is greater than the common significance level of 0.05. This suggests that there is not enough evidence to conclude that the observed difference in mean competency levels between school A and school B is statistically significant. Therefore, it can be concluded that the difference in competency levels between the both school is not statistically significant.

The data presented indicate that learners in both School A and B should enhance their competency level in Bread and Pastry Production. According to Bagon et al. (2023), in order for twenty-first-century learners to succeed in the company or environment in which they will be employed, competencies and skills must be enhances and evaluated. Thus, teachers should also be trained and skilled in the competency-based teaching (CBT) strategies to equip students with the skills they need to become employed and develop their competencies to adapt and be flexible workplace (Wesselink & Wals 2011) as cited by Boahin, (2018).

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Table 5: Significant correlation between competency level and awareness level of Grade 11 TVL students on the utilization of kitchen utensils

	Level of Awareness	*Level of Competency*
Mean	4.472591857	79.55555556
Variance	0.082799764	7.317610063
Observations	53	54
Hypothesized Mean Difference	0	
Df	54	
t Stat	-202.7984192	
P(T<=t) one-tail	8.1421E-80	
t Critical one-tail	1.673564906	
P(T<=t) two-tail	1.62842E-79	
t Critical two-tail	2.004879288	

.05 level

The data shows a significant correlation between Grade 11 TVL students' awareness of kitchen utensils and baking techniques and their competency level. With an average awareness score of 4.47 and an average competency score of 79.56, the high p-value (1.63E-79) and notable t-value (-202.80) highlight a notable relationship between these variables. This indicates that students who possess greater knowledge about kitchen utensils and baking techniques generally exhibit higher practical skills. The relatively low variance in awareness (0.083) compared to the higher variance in competency (7.318) suggests that while students' awareness levels are consistently high, their practical skills vary significantly. This disparity indicates that although students typically exhibit a high level of awareness, their practical competency varies considerably.

The significant correlation between the level of awareness and competency underscores the importance of both theoretical knowledge and practical application in culinary education. Enhancing students' understanding of kitchen utensils and baking techniques is crucial for improving their practical skills. Addressing the variability in competency and considering additional influencing factors will help in creating more effective educational strategies and supporting student success.

Table 6A: Least Mastered Competency in Preparing and Producing Bakery Products

Learning Competency	Mean	DR
Prepare a variety of bakery products according to standard mixing procedures/ formulation/ recipes and desired product characteristics	72	NI

Least Mastered Competency in Preparing and Producing Pastry Products

Learning Competency	Mean	DR
Learning Competency 1 Select, measure and weigh required ingredients according to recipe or production requirements and established standards and procedures	74	**NI**
Learning Competency 2 Prepared a variety of pastry products according to standard mixing procedures/formulation/recipes and desired product characteristics	72	**NI**
Learning Competency 8 Finish pastry products according to desired products characteristics	74	**NI**
Learning Competency 9 Present baked pastry products according to established standards and procedures	72	**NI**

Least Mastered Competency in Preparing and Displaying Petits Fours and Presenting Desserts

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Learning Competency	Mean	DR
Learning Competency 2 Prepare fillings with the required flavors and consistency	74	**NI**
Learning Competency 3 Prepare fondant icing following required temperature and standard procedure	74	**NI**
Learning Competency 5 Bake and decorate a selection of small choux paste shapes in accordance with established standards and procedures	74	**NI**
Learning Competency 8 Use garnishes, glazes and finished in accordance with established standards and procedures	74	**NI**
Learning Competency 10 Coat Marzipan fruits to preserve desired eating characteristics and softened with egg whites, piped into shapes and sealed/browned with applied heat, according to enterprise practice	74	**NI**
Learning Competency 11 Select and coat fresh fruits/fruit segments with pale amber-colored caramel or glazed or any coating specified by the enterprise	74	**NI**
Learning Competency 16 Package petits fours in accordance with established standards and procedures	74	**NI**
Learning Competency 19 Plan and utilize dessert buffet services according to available facilities, equipment and customer/enterprise requirements	74	**NI**

During the first quarter, the core competencies that learners should master should be preparing and producing bakery products. Both school A and school B got a 72 over-all mean on competency 2 above which fall under below Needs Improvement level (NI). According to study of Rodil & Briones (2022), conceptual skills are significantly related to core competencies in terms of preparing and producing bakery products. According to them, conceptual skills include the ability to arrange ideas, comprehend, take action, and recognize patterns diverse theories within their domains.

There were five (5) competencies listed on the table above which the respondents obtained a Needs Improvement level (NI) during the second quarter. The core competencies that learners should master during this quarter should be preparing and producing pastry products and it is significantly related analytical thinking skills to according to Rodil & Briones (2022), it includes enhancing of 21st century skills which include critical thinking, problem-solving, creativity, and decision- making.

There was no least mastered skill during the 3rd quarter indicated in the result of this study. Thus, table 5C presents the mean rating on the least mastered skills level of competency scores of Grade11 TVL students in Bread and Pastry Production of School A and B learner-respondents during the 4th quarter of S.Y. 2023-2024.

Table 5c shows that on the fourth quarter, these were eight(8) competencies where learners obtained Needs Improvement level (NI). The core competencies that learners should master during this quarter should be preparing and displaying petit fours and presenting desserts. This is also related to related analytical thinking skills (Rodil & Briones, 2022), which requires the ability to break down a problem into its component parts, comprehend a passage, explain how a system works, why something happened, solve a problem, and compare two phenomena.

The results on the least mastered skills on tables 5A, 5B and 5C are related to the baking knowledge and skills that should be are being assessed during summative or quarterly examinations. These learning competencies are indicated in the table of specifications (TOS) which are submitted by the teacher before the test is being taken by the learners and item analysis which are submitted by the teachers after the test is taken by the learners. These results are observably consistent with the over-all result on the lowest level of awareness on baking knowledge that both schools gained which are *"I am proficient in using various mixing methods, such as creaming, folding, and whipping"* and *"I understand the difference between volume and weight measurements in baking and use them accordingly" indicators.* This is also related to acquired conceptual and analytical thinking skills (Rodil & Briones,

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2022) which students are required to think logically about the relationships between concepts and situations they encountered. They recommended that teacher should focus on teaching the importance and concepts of analytical thinking skills during the discussion and hands-on applications, students' acquired skills in terms of preparing and producing bakery pastry products, and preparing and displaying petit fours and presenting desserts will be developed among students. It is also a must that future curricula, methodologies, and student preparation for being future innovators must be planned by educators.

It is also important to note that teachers should also be well-trained and equipped in teaching competencies to learners especially with subjects like Bread and Pastry Production that needed learners' hands-on experiences in order to acquire the expected learning competencies. As Boahin (2018) stated that students need to be well-prepared to function in existing professions and emerging challenges in the workplaces only if they are taught and trained. Thus, they should be engaged in competency-based training which focuses on skill performance, teacher's feedback; so, assessment tasks should include details about the tasks themselves, required procedures or understanding techniques and their commitment to guiding, supervising, and controlling activities to ensure task completion.

Finally, it is notable to mention that improving learning competencies in TVL is related to the exposure of learners to hands-on activities and personal learning experiences (Castillo, 2022). Therefore, teachers should have more hands-on activities in teaching Bread and Pastry Production to enhance least mastered learning competencies of the learners in School A and B.

Table 6: Developed a Lesson Exemplar based on the 4A instructional model/approach—Activity, Analysis, Abstraction, and Application.

Based on the results of the least mastered skills outlined in tables 5A, 5B, and 5C in response to problem 5, the researcher of this study developed a Lesson Exemplar based on the 4A instructional model/approach—Activity, Analysis, Abstraction, and Application. This Lesson Exemplar is in line with David Kolb's Experiential Learning Theory, as referenced by McLeod (2010). This method guarantees that lessons are stimulating, analytical, conceptual, and applicable, thereby promoting a thorough and profound grasp of the subject matter. The proponent developed eight (8) lesson exemplars aligned with the listed least competencies on tables 5A, 5B, and 5C. These are validated by five (5) content and language experts in the field. Further, Boahin (2018) indicated that instructional design which includes formulation of objectives, teaching and learning strategies and assessment should be well-prepared in teaching learning competencies in the perspective of competency-based teaching (CBT). Thus, this study prepared and developed a learning exemplar anchored in the 4A instructional model/approach—Activity, Analysis, Abstraction, and Application.

Table 7A: Level of Validity of the Proposed Material for Language

Criteria	Validator 1	Validator 2	Validator 3	Validator 4	Validator 5	Mean	DR
Category A. Coherence and Clarity of Thought							
1. Do the statements / phrases make sense?	5	5	5	5	4	4.80	VHV
2. Do the sentences in the paragraph contribute to one idea?	5	5	5	5	4	4.80	VHV
3. Are the thoughts / ideas logically sequenced?	5	5	4	4	4	4.40	VHV
4. Are conjunctions and transitional phrases used to link sentences or paragraphs?	5	5	5	4	4	4.60	VHV
5. Is the choice of words / expressions appropriate?	5	5	4	4	4	4.40	VHV
6. Is the length of sentences appropriate to the target learners?	5	5	5	5	4	4.80	VHV

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7. Is the language appropriate for the target learners?	5	5	5	5	4	4.80	VHV
8. Are the headings or titles appropriate to the content?	5	5	5	5	4	4.80	VHV
9. Is there proportional or equal treatment of topics of the same importance?	4	5	5	5	3	4.40	VHV
	4.89	**5.00**	**4.78**	**4.67**	**3.89**	**4.64**	**VHV**
Category B. Spelling and Punctuation							
1. Are words, whether local or foreign, correctly spelled?	5	5	5	4	4	4.60	VHV
2. Are the right punctuations in the right places?	5	5	5	4	4	4.60	VHV
3. Is the use of the serial comma (comma before and and or) observed?	5	5	5	4	4	4.60	VHV
	5.00	**5.00**	**5.00**	**4.00**	**4.00**	**4.60**	**VHV**
Category C. Consistency in Style							
1. Where alternative spellings are permitted, was a choice made and used consistently throughout the materials?	5	5	5	4	3	4.40	VHV
2. Are main heads, subheads, sections, and subsections consistently classified?	5	5	5	4	4	4.60	VHV
3. Is the need for the same tense or person observed?	5	5	5	4	3	4.40	VHV
4. Are the rules on capitalization, hyphenation, setting off in italics or boldface followed?	4	5	5	4	3	4.20	HV
	4.75	**5.00**	**5.00**	**4.00**	**3.25**	**4.40**	**VHV**
Language Overall Mean	**4.88**	**5.00**	**4.93**	**4.22**	**3.71**	**4.55**	**VHV**

Legend:

4.21-5.00	*Very High Validity (VHV)*
3.41-4.20	*High Validity (HV)*
2.61-3.40	*Moderate Validity (MV)*
1.81-2.60	*Poor Validity (PV)*
1.00-1.80	*Very Low Validity (VLV)*

The table shows the over-all level of validity of the proposed material for language evaluation as "Very High Validity (VHV)" with an over-all mean of 4.55. The result also shows that validator B gave the highest over-all score of 5.00 and validator 5 gave a 3.71 for the lowest over-all score. It also notable to mention that "coherence and clarity of thought category" on language validity evaluation got the highest mean of 4.64 and "consistency in style category" with a mean of 4.40 got the lowest evaluation validity. This result indicated that the learning exemplar developed by the researcher is highly valid as regards to language mechanics.

On the other hand, table 7B presents the mean rating of the validity level of proposed material in Bread and Pastry Production of five (5) expert-validators on content.

Table 7B: Level of Validity of the Proposed Material for Content

Factor I. Learning Competencies							
Criteria	**Validator 1**	**Validator 2**	**Validator 3**	**Validator 4**	**Validator 5**	**Mean**	**DR**

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1. The LE covered the targeted Learning Competencies (LCs) intended for the day/week.	5	5	5	5	4	4.80	VHV
2. The LE sufficiently developed the Learning Competencies (LCs) intended for the day/week.	5	5	5	5	3	4.60	VHV
	5.00	**5.00**	**5.00**	**5.00**	**3.50**	**4.70**	**VHV**
Factor II. Instructional Design and Organization							
1. LE contain accurate and relevant information.	5	5	5	5	3	4.60	VHV
2. LE has learning competencies are anchored on the topics.	5	5	5	5	3	4.60	VHV
3. LE uses a variety (at least 3) of self-directed techniques, learning tasks, and formative assessments.	5	4	5	4	4	4.40	VHV
4. LE has content that is logically developed and organized, i.e., lessons/activities are arranged fron simple to complex, from observable to abstract.	4	4	4	4	3	3.80	HV
5. LE contains essential instructional design elements that contribute to the achievement of learning objectives.	5	4	5	4	3	4.20	HV
6. LE allows for review, comparison, and integratio with previous lessons (if applicable).	4	4	4	4	4	4.00	HV
7. LE uses various motivational strategies (i.e., advance organizers, puzzles, games) to hook the target user's interest and engagement.	5	4	5	4	4	4.40	VHV
8. LE uses process questions and activities which require different levels of cognitive domain to achieve desired learning outcomes.	4	5	5	4	3	4.20	HV
9. LE has written and performance tasks that are differentiated based on target user's multiple intelligences, learning styles, and readiness levels.	4	4	4	3	4	3.80	HV
10. LE develops 21st century skills and higher orde cognition (i.e., critical thinking, creativity, learning by doing, problem solving).	5	5	5	4	3	4.40	VHV
11. LE integrates desirable values and traits.	5	5	5	4	3	4.40	VHV
	4.64	**4.45**	**4.73**	**4.09**	**3.36**	**4.25**	**VHV**
Factor III. Instructional Quality of Text and Visuals							
1. All contents in the LE are accurate.	5	5	5	4	3	4.40	VHV
2. The LE is free from any social content violations.	5	5	5	4	4	4.60	VHV
3. The LE is free from factual errors.	5	5	5	4	4	4.60	VHV
4. The LE is free from computational errors (if applicable).	5	5	5	4	4	4.60	VHV
	5	**5**	**5**	**4**	**3.75**	**4.55**	**VHV**
Factor IV. Assessment							
1. LLE has assessments that are aligned with the competencies and contents (i.e., lesson / topic).	5	5	5	5	3	4.60	VHV
2. The LE provides a variety of assessment types. Note: There should at least 3 assessment types in a LE.	5	5	5	4	4	4.60	VHV
3. The LE contains assessments that have clear	4	5	4	4	3	4.00	HV

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demonstrations / examples, instructions, and/or rubrics tom serve as guide on how these will be used.							
4. The LE has assessment activities that ensure active engagement of the learners.	5	4	5	4	4	4.40	VHV
	4.75	**4.75**	**4.75**	**4.25**	**3.5**	**4.40**	**VHV**
Factor V. Readability							
1. Paragraph structures in the LE facilitate smooth flow of ideas and concepts.	4	5	5	4	4	4.40	VHV
2. Topics and ideas presented from one lesson to the next are coherent and integrated with each other.	4	5	5	4	3	4.20	HV
3. Instructions, discussion points, questions, and activities are clear to the target users.	5	5	5	4	4	4.60	VHV
	4.33	**5.00**	**5.00**	**4.00**	**3.67**	**4.40**	**VHV**
Factor VI. Functionality							
1. Lesson exemplar practical and easy to use in a classroom setting	5	5	5	4	4	**4.60**	VHV
Factor VII. Acceptability							
1. Lesson exemplar appropriate and acceptable for the target audience	5	5	4	4	5	**4.60**	VHV
Factor VIII. Appropriateness							
1. Lesson exemplar align with the curriculum and learning objectives	5	5	5	5	5	**5.00**	VHV
Factor IX. Timeliness							
1. lesson exemplar current and reflective of up-to-date information and teaching practices	5	5	5	4	4	**4.60**	VHV
Factor X. Implementability							
1. Lesson exemplar be easily implemented by teachers with the available resources	4	4	5	4	4	**4.20**	HV
Factor XI. Sustainability							
1. lesson exemplar sustainable and can it be used repeatedly over time	5	5	5	4	4	**4.60**	VHV
Content Overall Mean	**4.77**	**4.82**	**4.85**	**4.13**	**3.88**	**4.49**	**VHV**

Legend:

4.21-5.00	*Very High Validity (VHV)*
3.41-4.20	*High Validity (HV)*
2.61-3.40	*Moderate Validity (MV)*
1.81-2.60	*Poor Validity (PV)*
1.00-1.80	*Very Low Validity (VLV)*

The table 7B shows the over-all level of validity of the proposed material for content evaluation also obtained a "Very High Validity (VHV)" with an over-all mean of 4.49. Result also shows that validator B gave the highest over-all score of 4.82 and validator 5 gave a 3.88 for the lowest over-all score. Factor on "appropriateness" which indicates that the lesson exemplar is aligned with the curriculum and learning objectives obtained a perfect 5 mean rating on content evaluation validity. On the other hand, "instructional design and organization" factor got the lowest mean rating of 4.25. This result indicated that the learning exemplar developed by the researcher is highly valid as regards to the content mechanics.

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The over-all mean rating of both language and content levels of validity is 4.52 which means "Very High Validity (VHV)". Thus, the lesson exemplar developed by is highly valid and effective to be utilized to improve least mastered learning skills indicated in this study and effective in facilitating the learning process (Anzures, 2022).

Conclusions

Based on the study, the following conclusions were drawn:

a. Learners are aware on how to use utensils and equipment for baking as well as attained expected baking knowledge skills necessary to prepare and produce baking products.
b. There is a considerable difference in awareness levels between the two groups regarding the utilization of kitchen utensils, equipment, and baking knowledge, with school A showing a significantly higher level of awareness compared to school B.
c. The data reveals that there is significant correlation between Grade 11 TVL students' levels of awareness regarding kitchen utensils and baking techniques and their competency level.
d. The Basic Competent (BC) level obtained by the learner-respondents within the four (4) quarters indicated thirteen (13) learned competencies are all related to the baking knowledge skills which are consistent with the over-all result on the lowest level of awareness on baking knowledge responses of the learner-respondents.
e. The least mastered skills results motivate the researcher to develop a 4As instructional model/approach—Activity, Analysis, Abstraction, and Application Lesson Exemplar.
f. The lesson exemplar developed by the researcher is a valid and effective instructional material to improve least mastered learning competencies in Bread and Pastry Production.
g. This study identified the following gaps:
    a. with the relatively low variance in awareness (0.083) compared to the higher variance in competency (7.318) points to a consistent level of awareness among students, but varying levels of practical skill, this disparity suggests that while students generally have a high level of awareness, their practical competency varies significantly.
    b. examining the level of awareness and competency is only limited to descriptive-comparative-developmental methodology.

Recommendations

Considering the findings and conclusions of this study, the researcher hereby recommended:

1. Since awareness and competency are significantly related, teaching methods and strategies should emphasize on enhancing students' understanding of kitchen utensils and baking techniques which could involve more detailed instruction, hands-on practice, and visual aids to improve both their theoretical knowledge and practical skills.
2. Both Schools A and B should enhance their acquired conceptual and analytical skills on the baking knowledge core competencies which are prepare and produce bakery products, prepare and produce pastry products, prepare and present gateaux, tortes and cakes, prepare and display petits fours, and present desserts.
3. The developed Lesson Exemplar should be utilized by Grade 11 TVL – Home Economics teachers in two (2) public secondary schools of Candon City Division to enhance the least learned competencies of the learners in Bread and Pastry Production.
4. The school quality assurance team should endorse these Lesson Exemplar for learning resources evaluation and official use in SDO-Candon City.
5. Action research should be employed as regards to the effectiveness of the lesson exemplar in enhancing least learned competencies.
6. Senior high schools offering TVL track might consider investing in resources and training for both students and educators to bridge the gap between awareness and competency. Practical workshops, demonstrations, and real-life applications can reinforce students' learning.
7. As to the gap of this study, further research could investigate other factors influencing competency, such as prior experience, learning methods, or personal motivation. This could provide a more comprehensive understanding of the factors contributing to students' practical skills.
8. A qualitative investigation is recommended to further explore and substantiate the results and findings of this study. This approach would provide a deeper understanding of the underlying factors and contextual

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elements that contribute to the observed outcomes, offering richer insights into the nuances of the data and enhancing the overall comprehension of the study's implications.

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