

# Performance-Based Assessment of Grade 10 Students in Cookery: Contextualized Instruction Guide

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## ABSTRACT

This research developed a contextualized instruction program at Cebu Technological University-Main Campus during the Academic Year 2022-2023. The respondents of this study were 5 teachers handling TLE - Cookery subject and 102 Grade 10 TLE - Cookery students in District 6, Lapu-Lapu City Division. This research is to assess the skill-based performance as to the three (3) learning skills in TLE - Cookery. Three learning skills of TLE – Cookery were evaluated using a 5-likert scale as an instrument in measuring the baseline and skill-based performance of the students. The results revealed that Grade 10 TLE – Cookery students demonstrated highly proficient in Handle and store fish and seafood and Cook fish and shellfish learning skill indicate a clear standard of skill, and very proficient in Plate or present fish and seafood learning skill suggested room for improvement in those tasks for some students. Thus, it can be concluded that contextualized instruction program could be used as instructional guide to improve the knowledge and skills of teachers and Grade 10 TLE – Cookery students as well as their performance.

**KEYWORDS:** *development; education; performance-based assessment; TLE - cookery; contextualized instruction guide; Cebu City, Philippines*

## 1. THE PROBLEM AND ITS RESEARCH DESIGN

### INTRODUCTION

#### Rationale of the Study

Assessing students' skill level in cookery is important in learning. This allows teachers to measure the effectiveness of their instruction by connecting student performance to specific learning objective or competency. However, this really makes it challenging for teachers to bring out the full potential of their students, since they have to come up with different lessons, teach different skills, and use different equipment and facilities.

In accordance with Republic Act No. 10533 Enhanced Basic Education Act of 2013 also known as K-12 Curriculum defines TLE as teaching all facts, concepts, skills, and values. The primary goal of K-12 TLE is to equip Filipino students with the knowledge and skills necessary to succeed in the 21st century workplace (Pallasigui, 2016). This is also to ensure that anyone who finishes Grade 10 and everyone who finishes Grade 12 TVL is eligible for a Technical Education and Skills Development Authority (TESDA) competency or qualification

assessment like the Certificate of Competency (COC), the National Certificate I (NC I), or the National Certificate II (NC II). This makes possible for the graduates to get jobs both locally and internationally if they decide not to go to college.

In Lapu-Lapu City Division, District 6, it is observed that students and teachers handling cookery experience inadequacy of facilities and lack or defective cooking tools and equipment as well as teachers' competency. In this matter,

students are unable to perform the skills since majority of tools and equipment are defective and not available. Cadavos (2022), revealed that lack of tools and equipment in the classroom and teacher's incompetent are the reasons of students' low performance. As a result, some Grade 10 TLE - Cookery completers in District 6 are also not fully competent. Okoye and Okwelle (2017) observed that graduates who do not find work are not just

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competent. The majority of them lack the abilities required for effective work performance. This is due to lack and defective of available resources, which may have caused the students incompetent.

This issue makes it challenging for the teacher to reach each students full potential as they need to plan different lessons, teach different skills, and use different equipment and facilities (Zabala, 2018). In teaching excellently, TLE teachers should have a wide range of knowledge about the subject. Teachers are allowed to choose which learning areas to focus. Important factor in choosing learning area is the availability of resources, as well as the teachers' skills and qualifications. Hence, pupils who were educated with instructional materials performed better than those who were not (Olayinka, 2016).

Teacher's global competence is a set of essential knowledge, critical attitudes, and skills that help students develop their own global competence (Association of International Educators, 2015). With the new curriculum it is essential to assess the teachers' competence thus the aim of educating students to become competent with their skills.

Thus, this research assesses the performance of students as to the skill in TLE - Cookery. Hence, the findings of this study have served as basis for contextualized instruction guide to improve knowledge and skills of teachers and Grade 10 students in cookery as well as their performance. improve knowledge and skills of teachers and Grade 10 students in cookery as well as their performance

### Theoretical Background

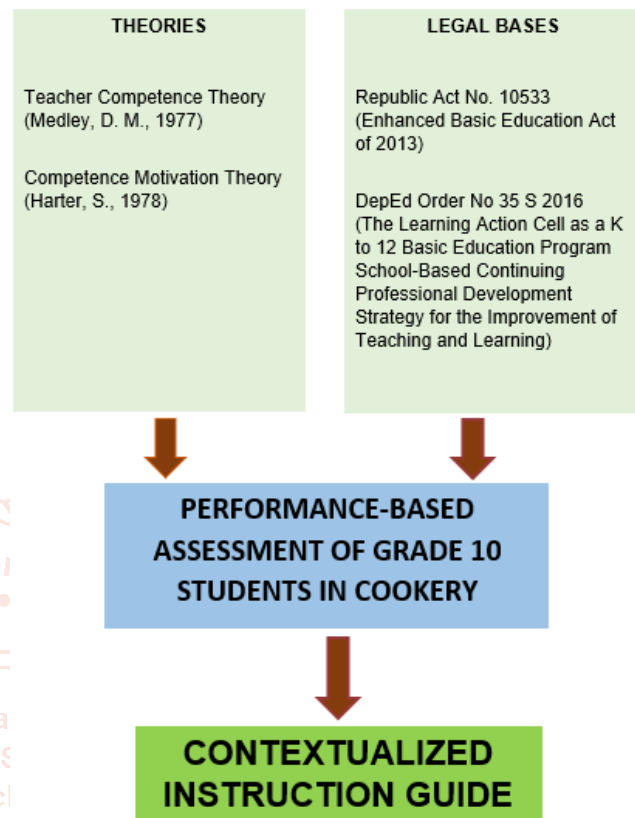
This study focuses on the idea introduced by Donald Medley on teachers' competence theory. Also, the principles of instrumentalism and pragmatism of John Dewey.

Medley's (1977) idea was the most widely used theory about teacher competence. Teacher competency was defined as any single knowledge, skill, or professional value position that the professional believes is significant to the successful practice of teaching. Thus, teachers handling cookery are expected to have integrated information in the subjects and their content. This requires subject matter and skill expertise to provide lifelong learning skills to students.

It also mentions five aspects of teacher competence. Medley's idea was used as a key theoretical foundation in this work. As a result, the researcher's major focus was these five components of teacher competence.

According to Medley's (1977) teacher competency

theory, significant components of teachers' competence include pre-instruction, presentation, learning environment, student learning, and professionalism. The researcher will discuss these five components in following section.



**Figure 1 Framework of Theoretical Background**

Medley's pre-instruction, one of the most important competencies, referred to an educator's desire in instructional preparation, which provides guidance for educating, learning, and achieving desired results. Another important skill for a teacher is presentation, which is linked to an effective teaching and learning plan and the development of learning opportunities for all students. Medley's learning environment is regarded as an additional competency in providing a supportive, safe, and stimulating learning environment that maximizes student learning and development opportunities. The fourth important component of a teacher's competence is the ability to produce desired learning outcomes from teacher/student interaction in which assessment and adjusted instruction should enhance student success, which is referred to as student learning. The final important component of teacher competence, professionalism, requires teachers to exhibit professional behavior and involvement outside of the classroom. All five of these components are critical in determining a school teacher's competence.

In connection, Harter's (1978) competence motivation theory can be used to explain why people participate

in and drop out of physical activity. This theory takes an interactionist approach to behavior, incorporating both individual and situational factors that influence motivation. White provided the original model (1959). Harter (1978), as shown in Figure 1, expanded on the premise that people are intrinsically motivated to master specific domains. As a result, they acquire and demonstrate competence and control over their environment, which increases their enjoyment (positive affect or pleasure). People are more motivated to engage in physical activity if they succeed. However, if people do not believe they are competent in that domain, they will experience negative affect, which will reduce

their motivation. Furthermore, her model takes into account the influence of significant others on one's perceptions of competence, affect, and motivation (Harter, 1978). Significant Others' Influence on Competence, Affect, and Motivation

**Perception of competence.** Significant others have an effect on one's perceptions of competence (Harter, 1978). This has been demonstrated in both the classroom and the physical activity context. Students' perceptions of competence are influenced by feedback from teachers, coaches, parents, and peers. One study discovered that teacher expectations about their students' future competence explained some of the changes in their students' perceptions of competence (Trouilloud et al., 2006).

**Affect.** Higher levels of competence are expected to increase enjoyment (Harter, 1978). Jones and LagacéSéguin (2006) define affect as a general positive emotional feeling. Positive emotions in physical activity participants are associated with positive feedback and interactions with significant others, whereas negative emotions in physical activity participants are associated with negative feedback and interactions with significant others. Physical activity participants find enjoyment in fewer parental negative reactions to performance, parental and coach involvement and support, companionship, and making friends (Scanlan et al., 2005). Negative performance feedback from parents, coaches, and teammates, as well as parental and coach expectations to perform well, are sources of stress for physical activity participants.

**Motivation.** Harter's (1978) model's final link demonstrates how intrinsic

pleasure and positive affect influence participation motivation. Several studies have demonstrated how affect and motivation are linked through the influence of significant others and perceptions of competence (Babkes & Weiss, 1999; Black & Weiss, 1992;

UllrichFrench & Smith, 2006; Weiss et al., 1996). Babkes and Weiss (1992) found that children's perceptions of their parents' beliefs influenced their affect and motivation. Mothers' and fathers' perceived competency beliefs about their children, perceived positive contingent responses to their children's performances, and perceived role modeling of physical activity behavior were all associated with their children's enjoyment and motivation. When a person enjoys an activity, her motivation increases.

The Republic Act No.10533, K to 12 Program is intended to reform the Philippine educational system. It seeks to empower each individual to improve their quality of life by providing adequate time for concept mastery, developing life-long students, preparing graduates for tertiary education, mid-level skill development, employers, and entrepreneurship, and avoiding child exploitation and other related problems. Students can get work experience while still in school because the curriculum has been improved. Every graduate will be familiar with information, media, and technology, as well as learning and innovation abilities, effective communication skills, and life and job skills.

This law has resulted in a significant change not only in the curriculum of the Filipino Educational System, but also in the lives of students, parents, and other school stakeholders. In terms of academics, these changes have resulted in an equivalent revolution in teacher training; thus, some seasoned teachers are even taught to "unlearn" and learn new strategies and techniques for teaching the subjects equivalent revolution in teacher training; thus, some seasoned teachers are even taught to "unlearn" and learn new strategies and techniques for teaching the subjects, and among these subjects.

In TLE, typical classroom activities include chalkboard activities, or, in some cases, students are required to clean, construct wooden projects or repair classroom furniture, cook, or bake without proper consideration of what knowledge, skills, or attitudes are to be developed, or how all of these are to be learned accurately. As a result, some students complete the subject and move on to the next learning area without actually measuring what they have learned.

In line with the implementation of Republic Act No. 10533, the DepEd issues this policy on The Learning Action Cell (LAC) as a K-12 Basic Education Program School-Based Continuing Professional Development Strategy for the Improvement of Teaching and Learning. Through this policy, the DepEd fully supports the continued professional development of its teaching personnel, which is based



on the concept of lifelong learning and the DepEd's dedication to developing teachers' potential so that they may succeed in the profession. This will achieve through the school-based LAC, which primarily serves as a professional learning community for teachers, assisting them in improving practice and student achievement.

The discussion of these two legal bases will aid the professional development of teachers to teach students not only the concept but also develop life-long learnings to prepare them for tertiary education, or employment. These will also enhance their knowledge, skills, attitudes towards improving their skills.

## THE PROBLEM

### Statement of the Problem

This research assessed the performance of Grade 10 students in TLE - Cookery in District 6, Lapu-Lapu City Division for the school year 2022-2023 as basis for contextualized instruction guide.

Specifically, it will seek to answer the following questions.

1. What is the profile of the respondents regarding the following:
  - 1.1. Teacher's;
    - 1.1.1. age and gender;
    - 1.1.2. plantilla position;
    - 1.1.3. highest educational attainment;
    - 1.1.4. years in teaching TLE - Cookery subject;
    - 1.1.5. relevant trainings in TLE – Cookery attended;
  - 1.2. Grade 10 students;
    - 1.2.1. age and gender;
    - 1.2.2. baseline assessment in Cookery;
  - 1.3. schools Tools, Equipment and Facilities Availability in TLE-Cookery?
2. What is the skill-based performance of the students in TLE - Cookery as to the following learning skills:
  - 2.1. handle and store fish and seafood;
  - 2.2. cook fish and shellfish;
  - 2.3. plate or present fish and seafood?
3. Is there significant correlation between the baseline and the skill-based performance results of students on the learning skills in TLE-Cookery?
4. What are the challenges and barriers related to teaching TLE - Cookery?
5. Based on the findings, what contextualized instruction guide can be developed?

## Null Hypothesis

**Ho:** There is no significant correlation between the baseline and the skill-based performance results of students on the learning skills in TLE-Cookery.

## Significance of the Study

This study is conducted based on following observations in the competencies of **Teachers** in teaching cookery as well as **Grade 10 students** in that subject. Thus, the results of this study will improve the knowledge and skills of teachers and Grade 10 students. Other than Teachers and Grade 10 students, the following will also be benefited from this study:

The **DepEd Officials or Policy Makers** can utilize the results of this research as guide in teaching cookery and increase the performance of the teachers in the District 6 and Lapu-Lapu City Division.

The **School Heads** can identify the availability and lack of equipment and facilities in cookery based on the results of the study. Thus, this will help increase the performance of the students in performing the skills in TLE-Cookery.

The **Teachers** will be aware with the challenges and barriers in teaching the subject. Thus, this will improve their teaching skills using the proposed contextualized instruction guide.

The **Grade 10 students** will master the three (3) learning skills in TLE - Cookery. Thus, they will be capable and competent in performing the competency or skill.

The **parents** of the students will be happy and encourage to support their child as the result of the performance are high.

The **researcher** will be oriented with knowledge and skills of the three (3) learning skills in TLE - Cookery and solve the existing challenges and barriers of the competencies.

The **future researchers** can get ideas and reliable data from this research to serve as references for their related research and other relevant studies.

## RESEARCH METHODOLOGY

This chapter points out the methods used to reach the objectives of this research. This includes discussion on research design, flow of the study, environment, respondents, instrument, data gathering procedure, statistical treatment of data, scoring procedure, and definition of terms.

### Design

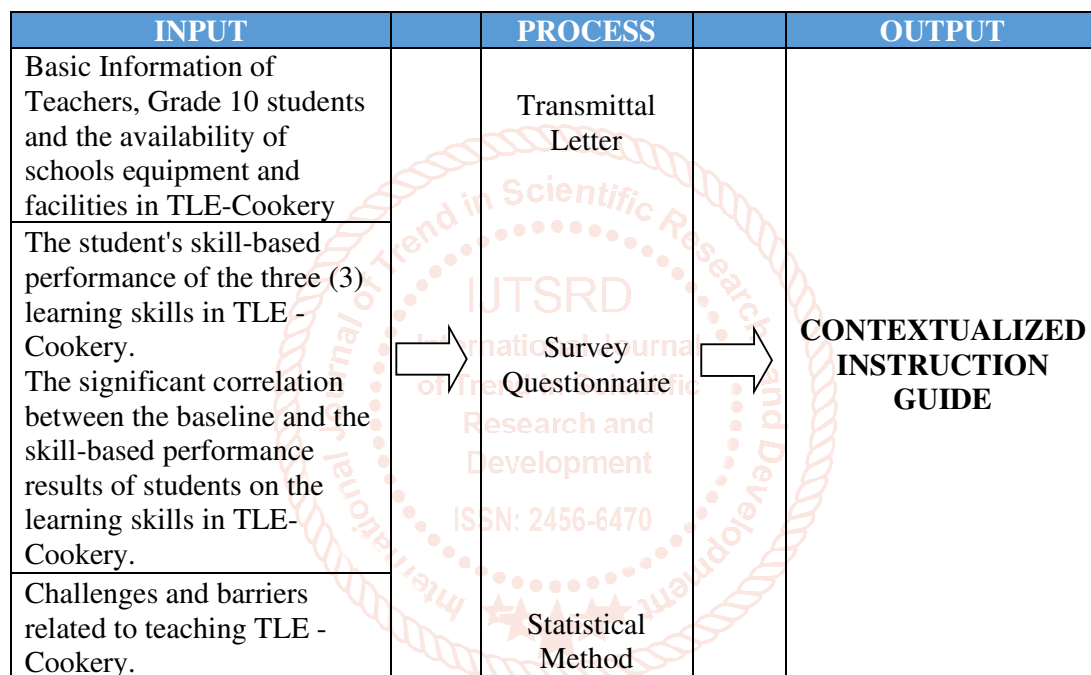
This research utilized descriptive-comparative design. The aim of descriptive comparative research design

describes variations between groups in a population without manipulating the data (Cantrell, 2011). Thus, this method is used to determine the significant correlation between the baseline and the skill-based performance results of Grade 10 students on the three learning skills in TLE-Cookery.

### Flow of the Study

The flow of this study is anchored on Input-Process-Output (IPO) model. The inputs of this research included the basic information of respondent groups such as Teachers and Grade 10 students in TLE - Cookery. The variables considered in the basic information are age and gender, plantilla position, highest educational attainment, years in teaching TLE - Cookery subject, relevant trainings in TLE -

Cookery attended. In addition, the variables considered in the basic information of Grade 10 TLE - Cookery students are age and gender, and baseline assessment in TLE - Cookery. Also, the availability of school's tools, equipment and facilities in TLE - Cookery was included. Likewise, the student's skill-based performance of three (3) learning skills in TLE - Cookery such as Handle and store fish and seafood, Cook fish and shellfish, and Plate or present fish and seafood. Furthermore, the test of significant correlation between baseline and skill-based performance results of students on the learning skills in TLE - Cookery. And lastly, the challenges and barriers related to teaching TLE - Cookery were also considered as input variables.



**Figure 2 Flow of the Study**

The process observed in this study was based on a survey questionnaire which data were analyzed and appropriately treated with statistical method. The output of this study is served as the basis for the researcher to formulate a contextualized instruction guide to improve the knowledge and skills of the teachers and Grade 10 students in TLE-Cookery as well as their performance.

### Environment

The location of this study was in the city of Lapu-Lapu, which includes both schools in the city proper and those on the islets. Our first national hero, Datu Lapu Lapu, a native chieftain who killed the Portuguese explorer Ferdinand Magellan and fought Spanish forces in the Battle of Mactan in 1521, was born in Lapu-lapu City. This city is renowned for being the birthplace of our nation's first national hero. The city is renowned for its white beaches and world-class resorts and hotels. Lapu-lapu City is also known as the exporting industries' haven in all of Region 7, which is overseen by the export processing zone authority. It is a densely populated city also known as "The Historic Resort City."

In 1970, a separate Schools Division was established from the Cebu Province Division. Its office is located in Barangay Poblacion along B.M. Dimataga Street. The Schools Division of Lapu-lapu City is currently divided into ten districts and is led by a Schools Division Superintendent. Presently, there are approximately 80 public elementary and secondary schools in the Lapu-lapu City Division.

District 6 is one of Lapu-Lapu City Division's districts. Ms. Mercedita A. Sumalinog, a Public Schools District

Supervisor, leads the district, which consists of four public elementary schools and four public secondary schools. Thus, the study will be conducted at Basak Night High School and Gun-ob High School, both of which offer a Grade 10 TLE – Cookery subject.



**Figure 3 Location Map of the Study**

### Respondents

The respondents of this research are Teachers handling TLE - Cookery who have been in the service from the school year 2022-2023. Also, the Grade 10 TLE – Cookery students who enrolled in the same school year. Simple random sampling technique is employed in this research. Simple random sampling is a type of probability sampling in which a researcher selects a group of people at random from a population. Everyone in the population has the same chance of being selected. With this sampling method, the group of respondents are distributed in Table 1.



**Table 1 Distribution of Respondents**

Respondents	n	Percentage
Teachers	5	5
Grade 10 Students Cookery	100	95
Total	107	100.00

Table 1 shows the distribution of respondents which is dominated by Grade 10 TLE – Cookery students equivalent to 95%. Gun-ob High School has 52 which equivalents to 51% and Basak Night High School has 48, equivalent to 46% of the respondents.

Followed by the Teachers which is equivalent to 5% of the total number of respondents. In Gun-ob High School only three teachers handling TLE – Cookery 10 which equivalents to 3% and two teachers for Basak Night High School which is equivalent to 2% of the total respondents of this research. Teachers and Grade 10 TLE – Cookery students are purposively selected as part of the respondent groups to validate the results of the teachers and students to avoid biases of the latter, as well. The total number of respondents in this research is one hundred five (105).

### **Instrument**

The research utilized a survey method to gather data and other relevant information from the respondents. The researcher made two questionnaires for teachers and for Grade 10 TLE – Cookery students.

Teachers questionnaire were divided into three (3) parts. The first part required the basic information of the respondents. Second part of the questionnaire was the availability schools equipment and facilities in TLE-Cookery and the last part was the challenges and barriers in teaching the subject.

For the students questionnaire, this were divided into three (3) parts. First part is the basic information of the students, second part is the baseline assessment of the three (3) learning skills in TLE - Cookery and the last part of the questionnaire is to assess the skill-based performance of the students as to the three (3) competencies in TLE - Cookery.

Part I and Part III of teachers questionnaire and Part I of students questionnaire are indicators of survey were all researcher-made constructs based on the observed manifestations and profile of the teachers and students in school. Part II of teachers questionnaire and Part III of students questionnaire is based on the recommendation of TESDA prescribed in the Training Regulations for Cookery NC II which will be assess by the Teachers. Part II of students questionnaire is based K to 12 Home Economics - Cookery Learning Module by the Department of Education.

### **Data Gathering Procedure**

In gathering the data in this study, the researcher utilizes survey questionnaire or checklist. The data being gathered are the information of the respondents, baseline assessment and prevalent challenges and barriers confronting the teachers.

**Pre-Data Collection.** A letter of request will be addressed and sent to the Lapu-Lapu City Division Office asking permission to conduct research in District 6 in the division. The researcher made another letter to the District 6 Supervisor, asking permission to conduct research in Basak Night High School and Gun-obHigh School. After the approval of the District Supervisor, a letter of information will be given to school principal asking permission to administer the survey questionnaire to. the designated respondents and informing them that they are the respondents of the study.

**During Data Collection.** Upon administration of the survey questionnaire, appointment with the respondents will be initiated. Before the distribution of the survey questionnaire, the respondents will be gathered and will have a short orientation on how to answer the questionnaire. They are given time to read the questionnaires and ask questions for clarifications. After, the questionnaire will be administered.

**Post Data Collection.** During the retrieval of questionnaires, the data will

be tallied using an adequate statistical method. It is guaranteed that the respondents' information will be confidential and will not be revealed to anybody other than the researcher.

### **Statistical Treatment of Data**

This research utilizes simple percentage and frequency count to answer questions number one (1), and four (4), while weighted mean and Likert scaling were used to analyze the data gathered for questions number two (2)

which were presented in table form. The idea of weighted mean is an important part of descriptive statistics, which are used to examine the consistency of the responses. Data for question number three (3) was treated with Pearson r correlation coefficient to determine the significant correlation between the baseline and the post assessment of the students. The data collected will be analyzed and interpreted using the following appropriate statistical tools:

**Frequency (f).** The number of times a particular data value appears in a sample.

**Simple Percentage.** It refers to the kinds of rates used in comparing two or more series of data. In addition, a simple percentage is used to figure out the relationship between two sets of data.

**Weighted Mean.** This is an average in which individual values are given weights to measure the relative relevance of each observation. It is the total of the computed values of the product of the assigned weights and their respective number of answers.

**Pearson's Correlation Coefficient.** Pearson's This was used to determine the statistical relationship, or correlation, of two variables. Since it's based on the method of covariance, it is an appropriate method for measuring the association between variables of interest. It describes the extent of the association, or correlation, as well as the direction of the relationship. (<https://www.statisticssolutions.com/pearsons-correlation-coefficient/>, retrieved January 31, 2021)

### Scoring Procedure

What is the skill - based performance of the Grade 10 TLE – Cookery students as to the following learning skills: Handle and store fish and seafood, Cook fish and shellfish and Plate or present fish and seafood.

Weight	Rating Scale	Category	Verbal Description
5	4.21-5.00	Outstanding	Highly proficient
4	3.41-4.20	Very Satisfactory	Very Proficient
3	2.61-3.40	Satisfactorily	Proficient
2	1.81-2.60	Unsatisfactory	Nearly Proficient
1	1.00-1.80	Poor	Not Proficient

### DEFINITION OF TERMS

The following terminology and phrases are operationally defined to help the reader show that they understand this study:

**Baseline Assessment.** A baseline assessment is a way to find how far a student has developed before they proceed to the new lesson or competency.

**Basic Personal Information.** This refers to the information of the respondents that can be used to identify them such as age and gender, plantilla position, highest educational attainment, years in teaching cookery subject, relevant trainings in cookery attended and academic performance.

**Contextualized Instruction Guide.** Contextualized instruction connects the learning of basic skills to academic or occupational content by putting the focus of teaching and learning on real-world applications in a setting that the student finds interesting (Gavilan College, n.d.).

**TLE - Cookery.** A specialization course for Grade 9 – 10 in Technology and Livelihood Education (TLE) – Home Economics subject.

**Cook fish and shellfish.** This is the ability to prepare fish and shellfish by combining, mixing, and heating with other ingredients.

**Handle and store fish and seafood.** This process is to check the freshness and to store the fish and shellfish in the freezer to keep its freshness without allowing the microorganisms to multiply.

**Plate or present fish and seafood.** This is the process of presenting the fish and shellfish in an attractive way.

**Skill-based Performance.** This evaluates the students' ability in applying the skills and knowledge in a specific competency or lesson.

## 2. REVIEW OF RELATED LITERATURE AND STUDIES

This chapter represents the related literature and studies to support and strengthen the concepts discussed in this research.

### Related Literature

#### Cooking fish and shellfish learning skill

Several studies give intriguing insights into various areas of the culinary arts and education by examining the competency of cooking fish and shellfish. The studies were conducted to explore the competency of cooking fish and shellfish. The researchers Burns et al. (2023) conducted a survey that focused on the correlation between parental cooking confidence and children's consumption of fish and shellfish. This



survey was a cross-sectional study. Participants in the Guelph Family Health Study were given questionnaires that required them to provide their own self-reported information as part of their approach. The findings indicated that there is a favorable association between the level of parental confidence and the amount of fish and seafood consumed by children. The findings of the study suggest that parental confidence in the kitchen as well as competence in the kitchen are essential components for encouraging children to develop good eating patterns.

During this same time period, Biadnes (2022) investigated the connection between instructors' technical competency, the contentment of their students, and their psychomotor performance in Cookery NC II. In order to collect information from both students and teachers for the study, a descriptive correlational research method was used. The findings showed that learner satisfaction and psychomotor performance are highly influenced by the level of competence and abilities possessed by teachers. According to the findings of the study, participating in professional development programs is essential for instructors looking to improve not just their own capabilities but also the overall standard of culinary education.

Gills et al. (2023) attempted a new method by investigating the gap between educational training and job needs in the fisheries vocational education system in India. They titled their study "Educational Training and Work Demands." Their study made use of a multidimensional competency gap analysis, which incorporated qualitative and quantitative research approaches. The findings brought to light a significant gap in capability, which lends credence to the hypothesis that the existing educational system does not adequately prepare pupils for the world of labor. The result is that programs for vocational education need to be continuously examined and altered in order to satisfy the ever-changing requirements of the industry.

To contextualize food safety learning abilities in a similar manner, Limon et al. (2022) utilized Glatthorn's Standards-Based Curriculum Development Model. According to the findings of the research, the model is an efficient tool for developing a course that meets the requirements for food safety but is also versatile enough to be adapted to a variety of settings. This has repercussions for the construction of future curricula, and it highlights the necessity of taking into consideration both universal standards and local conditions.

In addition, Pasarica and Kay (2020) used a

collaborative intervention strategy to teach lifestyle medicine competences to undergraduate medical students. This research was published in the journal *Lifestyle Medicine*. Their findings revealed that this strategy was effective in teaching these skills, highlighting the potential for medical education to adopt a more integrated and collaborative approach.

In the last study, Razavi et al. (2020) looked into how a multisite culinary medicine curriculum affected dietary habits and lifestyle medicine skills among medical students in training. Their findings showed a favorable correlation between the curriculum and cardioprotective eating habits. This indicates that such a curriculum may have the ability to enhance health outcomes.

Cooking techniques for fish and shellfish, in addition to more general culinary abilities, are not only essential competencies for certain types of professional training, but they also have broader implications for the promotion of healthy diets and lifestyles. These findings highlight the necessity of improving teaching competency, aligning educational programs with the demands of business, and adopting creative and context-specific teaching approaches. It is necessary to do further study in order to investigate and perfect these methods of culinary instruction.

### **Contextualized instruction guide development**

Turning our attention to the field of developing contextualized teaching guides, we find that a number of research have recently brought to light revealing new information. Troyan (2020) emphasized the significance of contextualized evaluation and learning when talking about the importance of the relevance of genre in global language teaching. Troyan investigated, with the use of theoretical views from systemic functional linguistics and genre theory, how genre-based education might produce more contextually relevant learning experiences for students. The study came to the conclusion that a deeper comprehension of language patterns might greatly increase students' communicative competence. This finding contributes to the continuing discussion over the crucial role that contextualized language training plays in modern education.

The research conducted by Hong et al. (2020) centered on the creation of an inquiry and hands-on teaching model with the intention of directing STEAM (Science, Technology, Engineering, Art, and Mathematics) lesson preparation for kindergarten students. A control group and an experimental group were included in the design of the model since it was based on an experimental study design. The findings of the study showed that the newly established model significantly increased the children's cognitive load as

well as their creative talents and their capacity to find solutions to problems. As a result, the study highlighted how important it is to incorporate approaches that are focused on inquiry and hands-on learning into the process of lesson design.

Chen (2021) investigated how prospective teachers of English as a foreign language might be better prepared to develop issue-centered English curricula. Chen investigated the pre-service teachers' perceptions of their capacity to construct issue-centered education by employing a qualitative study approach. According to the findings of the study, pre-service instructors frequently have difficulty developing classes that are not only interesting but also cognitively demanding for their students. It advised that teacher education programs should give more chances for pre-service teachers to practice planning issue-centered lessons, underlining the need for more hands-on experience in teacher education. In addition, it suggested that teacher education programs should provide more opportunities for pre-service teachers to practice teaching.

In their study work "The Necessity of a Functional Linguistic Knowledge Base in World Language Teacher Education," Troyan, Sembiente, and King (2019) investigated the requirement of such a knowledge base. The research utilized a case-study methodology, and the findings indicated that prospective teachers of foreign languages lack the necessary linguistic expertise to effectively train students in grammar. This highlights the need of providing language instructors with extensive knowledge bases so that they are able to successfully assist students in the language learning process.

A concept for the contextualized evaluation of distant cooperation that is facilitated by augmented reality (AR) was offered by Marques et al. (2022). The research presented its findings in the form of a theoretical debate to support the contention that conventional techniques of evaluation are frequently unsuitable for gauging the level of collaboration in virtual settings. The authors suggested adopting a strategy that is more contextualized, so reiterating the significance of formulating assessment strategies that are appropriate for the intended use and are adapted to the specific aspects of the educational setting.

To summarize, the production of contextualized instruction guide necessitates having a strong comprehension of the material being taught, the instructional strategies being utilized, and the educational setting. According to the findings of this research, in order for educators to effectively create and implement instructional guides, they need to have a strong foundation in both the content they teach and

the teaching methods themselves. In addition, it is impossible to place enough emphasis on the significance of adapting instructional methodologies to meet the requirements of distinct learning settings, which is especially crucial when considering the context of virtual collaboration and STEM education.

### **Learning skills in cookery**

In this section, we will continue our investigation of the chosen subject by delving into the process of acquiring skills in the kitchen, which is an essential component of culinary education. The concept of "cooking for fun" was investigated by Luoh et al. (2020) as an innovative approach to culinary learning tourism. Their investigation took a qualitative approach, with in-depth interviews being conducted with individuals who had participated in culinary tourism programs. The outcomes of the study suggested that the enjoyment that may be received from cooking might be an effective strategy to increase learning. As a result, the findings imply that including entertaining activities in cooking, sessions could potentially boost learning abilities.

Research conducted by González-Davies (2020) investigated the possibility of enhancing mediation skills via the use of translation. When it comes to education in the culinary arts, the process of learning frequently involves students recognizing and interpret culinary terminology that is written in a variety of languages. Despite the fact that the research does not explicitly explore cooking, it does give pertinent insights into the necessity for language abilities in culinary education, particularly in an educational setting that is multicultural.

Researchers Ferguson, Roofe, and Cook (2021) investigated the views of educators on sustainable development as well as the consequences of such views for teaching about sustainable development. Despite the fact that the research does not specifically address cooking skills, it does offer a larger view of the significance of sustainability in education, which is an area that is increasingly being incorporated into culinary education.

Panda et al. (2021) carried out a comprehensive review in order to determine the difficulties that student nurses and midwives have when gaining practical experience in clinical settings. Even though culinary education is not the primary focus of this study, the challenges that are highlighted, such as inadequate guidance, difficulty in translating theory into practice, and intimidating learning environments, are also applicable in the context of cookery learning, which highlights areas for improvement in the educational approach.

According to the findings of a study conducted by Low et al. (2019), which looked at the influence of a universal social-emotional learning curriculum over the course of two years, researchers discovered that such a program greatly improved students' social and emotional abilities. Despite the fact that the study did not concentrate on culinary education, it does demonstrate how important it is to address social and emotional issues in any learning setting, including those involving cooking, in order to ensure the complete development of students.

In conclusion, developing learning abilities in cooking calls for a multidimensional strategy that involves enjoyment in the learning process, language competence, an appreciation of sustainability, the addressing of problems in the learning environment, and the integration of social-emotional factors into the curriculum.

### **Students' performance in cookery**

As we move forward, we will now be focusing on how well the kids did in the cooking class. Cohen et al. (2021) conducted a comprehensive review in order to investigate the effect that providing children with free meals at school has on a variety of facets of their experiences, including their academic achievement. They discovered that elevating pupils' access to nutritious meals at school led to improved academic achievement throughout the student body. The ability to cook was not the major objective of the study; nevertheless, it did imply that there may be a connection between food preparation abilities, the availability of food, and academic success. Therefore, in a larger perspective, boosting students' success in cooking may have a good influence on their overall academic accomplishment. This is something that could have a favorable impact on the overall academic achievement of students.

Martinez et al. (2020) carried out a study with the intention of determining whether or not there is a correlation between food insecurity, mental health, and academic performance among students attending public universities in the state of California. They discovered a substantial connection between having insufficient access to food, having poor mental health, and having poor academic performance. Although the primary focus of this study was not on cooking per se, it did highlight how important it is to have access to food and to have a balanced diet for optimal academic performance. Therefore, enhancing students' competence in the kitchen may also assist solve issues of food insecurity and indirectly lead to improved academic performance.

During the COVID-19 pandemic, Garbe et al. (2020) conducted research to investigate the perspectives of

parents whose children participated in distance education programs. The findings of the study showed that parents reported elevated stress levels as well as difficulty in managing their duties, which may have had an effect on the academic performance of their children. Although the study did not focus directly on culinary education, it did highlight the potential influence of external variables, such as distant learning circumstances and parental support, on student performance. This is a component that should be taken into consideration in the context of educational programming pertaining to culinary arts.

In the last study, Cook and Heyes (2020) looked at how exposure to cold temperatures outside affected cognitive function indoors. They found that there was a statistically significant drop in cognitive function when subjects were exposed to lower temperatures outside. Despite the fact that this does not have a direct bearing on the subject of cooking, it does show how environmental factors can affect cognitive function, which could in turn affect a student's performance in the subject of cooking.

In conclusion, the performance of students in the subject of cooking is affected by a broad variety of elements, including the accessibility and safety of food, the support of their parents, the learning settings, and even the environmental factors. When teachers have a better understanding of these factors, they may assist students improve their learning environments by making them more encouraging and productive.

### **Review of Related Studies**

The following inquiry into the intricacies of cooking education is presented in the form of a literature review. The review focuses on essential topics such as the creation of the curriculum, the profiles of the teachers, the learning assessments, and the demographic features of the field. The all-encompassing method makes it possible to conduct an in-depth investigation of the multi-faceted character of cooking education, which continues to be a prominent subject of interest among education researchers and industry practitioners.

Evans (2021) evaluated the cooking classes offered in a variety of countries throughout the world in his research. The objective of the research was to determine how well students were prepared for work in the culinary sector based on the educational program that they had been following. Although there is a high degree of consistency in culinary education all over the world, the research indicated that the curriculum may benefit from more context-specific inputs even though there is a high level of standardization internationally. The research included



both qualitative and quantitative approaches, including surveys and interviews with educators and students. The conclusion emphasized the requirement for a curriculum that is more malleable and adaptable so that it may better meet the specific requirements of both the students and the industry.

The contextualized instruction manual for cooking that Park (2020) prepared may be found here. In the course of this research project, a case study technique was implemented in a cooking class that took place in South Korea. The findings indicated that the implementation of a contextualized teaching guide led to an improvement in the level of conceptual comprehension as well as practical ability exhibited by the students. The research conducted by Park underlined how important it is for curriculum makers to ensure that instructional materials are aligned with local settings in order to improve learning results.

The research conducted by Russo (2019) looked into the idea of plantilla jobs that are present within the educational system. In order to investigate the function, efficiency, and possible shortcomings of these roles, it utilized a study strategy that included a combination of different research approaches. According to the findings of the study, plantilla posts made a contribution to the upkeep and continuation of order inside educational institutions. However, the study also identified possible areas for improvement, notably in regard to the rigidity of these responsibilities.

In continuation of the teachers' point of view, Vasquez (2022) carried out an in-depth investigation of the academic profiles of culinary instructors. The research conducted by Vasquez utilized a cross-sectional study design and included a sample of culinary instructors from a variety of educational institutions. The researchers concluded that there was a significant association between the instructors' academic backgrounds and the quality of their instruction. This study came to the conclusion that continual professional development and continuous learning are the best ways to improve the standard of culinary education.

The research conducted by Cooper (2020) looked at the effects that hands-on experience had on classroom instruction for culinary arts. The results of a survey-based study in which students and teachers from vocational schools took part revealed that pupils greatly improved their technical abilities and theoretical comprehension after participating in practical training. The research came to the conclusion that practical training need to be a fundamental part of culinary education, underlining the significance of having a teaching kitchen that is

both well-equipped and operational.

The research conducted by White (2021) studied the age and gender demographics of students enrolled in cooking classes. This quantitative analysis indicated that there is an increasing tendency of female students and senior students participating in cookery lessons. The research includes a series of questionnaires that were done across a variety of culinary schools. According to White, the ramifications of these demographic trends may need modifications to instructional methodologies and the substance of the curriculum in order to accommodate to the growing needs and experiences of students.

The research that Robinson (2020) conducted was a quantitative examination of the baseline assessment for cooking. This study concentrated on the baseline skills of students enrolling in culinary programs and made use of statistical modeling to discover patterns and forecast results. According to the findings of the study, students' ultimate performance was highly impacted by their prior knowledge and abilities in the kitchen, which suggests that early interventions could enhance overall results.

Torres (2022) conducted research to investigate the significance of learning abilities in the field of culinary education. The findings of the study came to the conclusion that well-defined learning abilities were essential for efficient culinary education. The research utilized a mixed-methods approach, which included questionnaires, interviews, and classroom observations. They acted as a guide for both the instructors and the students, which was a significant factor in the overall success of the culinary program.

The research conducted by Bailey (2019) focused on the difficulties and obstacles that are present in worldwide cooking education. The findings of this qualitative study, which relied on interviews with teachers and students from a number of different nations, revealed that the most prevalent challenges were linked to money, access to quality equipment, and cultural acceptability of cooking as a valid educational endeavor. According to the findings of the study, any approach to overcoming these obstacles must take into account both the cultural and environmental factors involved.

The research that was conducted by Fitzgerald (2021) centered on determining how well skills are taught in culinary schools. In this study, a variety of skill-based performance assessments were analyzed, and the researchers employed a strategy that included various case studies. Real-time, hands-on evaluations were shown to be the most effective and accurate measures of a student's practical skill, as proven by the findings

of the study. According to the findings of the study, written examinations are required for the purpose of assessing theoretical knowledge; nevertheless, skill-based evaluations are an important component of culinary education.

The purpose of the case study conducted by Smith (2020) was to enhance the overall performance of students studying culinary arts. The research was carried out at a vocational college in the United States, and it involved modifying the course curriculum and monitoring the students' progress over the course of one academic semester. The findings pointed to a discernible rise in both the level of theoretical understanding and the level of practical ability. The findings of this study highlight the significance of curricular shifts with regard to student outcomes as well as the importance of continuous curriculum evaluation and improvement.

Liu and Chen conducted a study in 2019 in which they examined the concept of culinary education from an international standpoint. In order to analyze the various approaches of culinary instruction, they utilized a comparative research design. According to the findings of the research, cultural factors, educational policies, and economic considerations all played a significant part in the development of cooking education. These findings highlight the need of taking a holistic approach to understanding and enhancing cookery education.

The research conducted by Brown (2020) shed light on the importance of contextualized training in the culinary arts. The study employed a methodology known as mixed methods, which included questionnaires, in-person interviews, and classroom observations. According to the findings, learning outcomes were greatly improved if the instructional techniques and content were relevant to the experiences and circumstances of the students.

The research conducted by Harris (2020) looked at the demographic make-up of those who teach culinary instruction. This research, which analyzed survey data from culinary educators all around the United States, discovered that the majority of culinary educators were seasoned professionals from the field, bringing a lot of practical expertise into the classroom with them. The findings of the study indicate that pedagogical training, in addition to professional expertise in the relevant field, is required of educators if they are to effectively pass on their skills and knowledge to students.

The review study written by Santiago (2018) examined the function and significance of plantilla jobs in the educational system. This research looked

at a number of different studies on the topic and came to the conclusion that plantilla roles, while essential for ensuring the continuity and stability of an institution, may be enhanced by allowing more room for flexibility and adaptability to account for the shifting educational landscape.

The author of Patel's (2019) study investigated the educational attainment of those who teach culinary arts as part of his research. Due to the fact that this research, which was based on a survey, found a substantial association between the educators' degree of education and the quality of their instruction, it highlights the significance of obtaining a higher education for those who teach culinary arts.

The influence of instructional time on culinary education was the primary topic of Gomez's (2021) research study. This quantitative study, which used surveys of culinary teachers, found that the efficiency of teaching improves with time as educators become more skilled at conveying knowledge from the curriculum and managing the dynamics of the classroom.

The research that Thompson (2018) conducted centered on the topic of professional growth in the field of culinary education. The research indicated that continued professional development, with a special emphasis on creative teaching techniques and up-to-date industry practices, was crucial for effective culinary education. The research utilized a mixed-methods approach that comprised interviews, questionnaires, and classroom observations.

According to the findings of Tan and Sy's (2019) demographic research of gender and age in culinary education, the field, which has traditionally been dominated by men, is rapidly drawing female students as well as older learners. Their research, which made use of survey data from a variety of culinary schools, led them to the conclusion that this demographic transition might have significant repercussions for the creation of curricula and the techniques of instruction in the culinary education sector. In contrast, Elli & Ricafort (2020) claim that more female instructors than male teachers identified TLE to be their main field of specialization. Gender stereotypes may be the reason for gender imbalances among TLE teachers, as the teaching profession is often thought to be more acceptable for females. As a result, teaching has been one of the few skilled professions open to women (OECD, 2022).

An in-depth investigation of what constitutes a baseline evaluation in culinary programs was one of the things that the author of Williams's (2020) study did. This research, which was based on survey data

from culinary educators and students, came to the conclusion that baseline evaluations were extremely important in evaluating the students' current knowledge and abilities, which might assist educators adjust training to fit the unique requirements of individual students.

This in-depth analysis of the relevant literature has illuminated several facets of culinary education, including the formation of curricula and instructor profiles, as well as learning assessments and demographic considerations. These studies highlight the dynamic and complex character of culinary education, calling for context-specific interventions, adaptable methodologies, and a commitment to continual professional development among teachers. It is still abundantly clear that further study is required, particularly when one considers the ongoing changes taking place in both the culinary sector and the educational practices. This collection of papers is a useful resource for policymakers, curriculum creators, educators, and academics who are interested in elevating the level of quality and relevance of cooking instruction.

### 3. PRESENTATION, DATA ANALYSIS AND INTERPRETATION

This chapter describes the presentation, data analysis, and interpretation of the data from the responses of the respondents. There five sets of data which are discussed in this chapter such as the basic personal information of teachers and students, tools, equipment and facilities availability in TLE – Cookery, skill-based performance of Grade 10 students, a test on the significant correlation between baseline assessment and skill-based performance of Grade 10 TLE – Cookery students and lastly the challenges and barriers related to teaching TLE – Cookery.

#### PROFILE OF TEACHERS

This domain provides secondary information to support and complement the desired data inevitable to carrying out the agenda of this research. Such information is shown in each table which include their gender and age, plantilla position, highest educational attainment, years in teaching TLE - Cookery subject and relevant trainings in cookery attended.

The following tables presents data on the characteristics of the teachers. The first column indicates the variable being measured, such as gender, age, plantilla position, highest education attainment, years of teaching and relevant trainings and seminars attended in TLE – Cookery subject. The second column shows the number of teachers that fall under each category, while the third column shows the percentage of teachers in that category.

#### Age and Gender

The data gathered from these indicators are presented in Table 2 which are arranged in terms of the desired range with five-point interval for the age category and sex denomination for gender.

**Table 2 Age and Gender**

Age Bracket	N	Percentage (%)
56 years old and above	0	0
51 – 55	0	0
46 – 50	2	40
41 – 45	0	0
36 – 40	3	60
31 – 35	0	0
26 – 30	0	0
21 – 25	0	0
<b>Total</b>	<b>5</b>	<b>100</b>
Gender	N	Percentage (%)
Male	0	0
Female	5	100
<b>Total</b>	<b>5</b>	<b>100</b>

The data explain that most of the respondent groups are at the middle age from 36 – 40 years, followed by the age of 46 – 50 years. The data are dominantly participated by the middle-ages hence, it covered more than 60 percent of the total number of respondents.

This research was participated by five (5) female respondents. Most female teachers mostly handle TLE – Cookery subject p. This implies that most female considered TLE as their major field of specialization than the male teachers. The gender imbalances among TLE teachers may be attributed to gender stereotyping in which teaching profession may be generally perceived to be more appropriate for females (Elli, & Ricafort, 2020).

#### Plantilla Position

Plantilla position are government-approved listings of employment in national and municipal government organizations, instrumentalities, and entities (Roldan, W. C., etc, 2022). Santiago (2018) conducted review research to investigate the purpose and significance of plantilla employment in the educational system. This study examined a number of different studies on the subject and concluded that plantilla roles, as important for ensuring an institution's continuity and stability, may be enhanced by allowing more room for flexibility and adaptability to account for the changing educational landscape.

Each plantilla position corresponds to a particular monthly salary and duties and responsibilities. The higher the position, the greater the compensation, and the more extensive the duties and responsibilities. The respective plantilla position held by respondents are



detailed in Table 3.

**Table 3 Plantilla Position**

Plantilla Position	N	Percentage (%)
Master Teacher II	0	0
Master Teacher I	0	0
Teacher III	5	100
Teacher II	0	0
Teacher I	0	0
<b>Total</b>	<b>5</b>	<b>100</b>

All respondents are in the position of Teacher III with a rating of 100 percent. Furthermore, the data shows that the teachers may have missed out on the promotion to Master Teacher I due to multiple requirements that must be accomplished.

### Highest Educational Attainment

Educational attainment is regarded as an important factor for a master teacher to effectively discharge his duties and responsibilities in school. Complete academic requirements in a teaching-related master's degree programme are one of the basic requirements for a teacher to qualify for the position (MECS Order No. 10 s. 1979). Table 4 presents highest educational attainment of TLE – Cookery teachers.

**Table 4 Highest Educational Attainment**

Highest Educational Attainment	N	Percentage (%)
Full fledge Doctorate Degree	0	0
CARp in Doctorate Degree	0	0
With Units in Doctorate Degree in Education	1	20
Full fledge Master's Degree	1	20
With Certificate of Academic Requirement in Master's Degree	3	60
With more than 15 units in Master's Degree	0	0
With 15 units or less in Master's Degree	0	0
Bachelor's Degree	0	0
<b>Total</b>	<b>5</b>	<b>100</b>

Table 4 revealed that three (3) of the respondents have been able to earn certificate of academic requirements in master's degree. This implies that the majority of TLE teachers nowadays pursue master's degrees in order to broaden their knowledge in parallel with their field of specialization and to advance to a higher position. Nonetheless, only one (1) of these teachers is a full-fledge master's degree and the other one (1) teacher have units in doctorate degree. This means that other TLE teachers who have enrolled in graduate school may struggle to complete their master's and doctorate degree. One possible

explanation is that they do not have enough time to write the thesis due to their teaching workload and other school obligations. It is important to emphasize that a master's degree is important for enhance teachers' competencies (Elli & Ricafort, 2022).

### Years in Teaching TLE – Cookery subject

The teaching experience is significant to develop their set of knowledge and skills in order to become effective teachers. This variable refers to the acquired years in teaching TLE – Cookery subject.

**Table 5 Years in Teaching TLE – Cookery subject**

Years of Experience	N	Percentage (%)
11 years and above	3	60
6 – 10	2	40
1 – 5	0	0
<b>Total</b>	<b>5</b>	<b>100</b>

Table 5 revealed that three (3) of the respondents are already been teaching TLE – Cookery subject for 11 years and above. The other two (2) teachers had been teaching for 6 – 10 years. This result contradicts the findings of Bancual's (2019) study, which revealed that a great number of junior high teachers have only 5 years of experience.

### Relevant Trainings in TLE – Cookery Attended

In teaching TLE subjects, teachers should be equipped with the competencies in teaching TLE through attending related seminars and trainings to consequently upgrade their knowledge and skills. This variable refers to the acquired years in teaching TLE – Cookery subject.

**Table 6 Related Trainings and Seminars Attended in TLE – Cookery**

Related Trainings and Seminars Attended in TLE – Cookery (in terms of hour)	N	Percentage (%)
80 hours and above	0	0
80 hours (10 days)	0	0
40 hours (5 days)	2	40
24 hours (1 day)	3	60
<b>Total</b>	<b>5</b>	<b>100</b>

The table 6 revealed that majority of the respondents had 24 hours trainings and seminars attended related in TLE – Cookery subject. However, the two (2) respondents have been attending 40 hours trainings and seminars related in the subject. According to Elli & Ricafort due to limited school funding, TLE – Cookery teachers were offered few chances to participate in regional, national, and worldwide seminars and trainings. Mostly of teachers used their personal funds to attend seminars and training in order to acquire more points for promotion.

## PROFILE OF GRADE 10 STUDENTS IN TLE – COOKERY

This domain provides secondary information of Grade 10 TLE – Cookery students to support the desired data to carrying out the agenda of this research. Such information is shown in each table which include their age and gender, baseline assessment.

The following tables presents data on the characteristics of the students. The first column indicates the variable being measured, such as gender, age, and baseline assessment. The second column shows the number of students that fall under each category, while the third column shows the percentage of students in that category.

### Age and Gender

The data gathered from these indicators are presented in Table 7 which are arranged in terms of the desired range with five-point interval for the age category and sex denomination for gender.

**Table 7 Age and Gender**

Age Bracket	N	Percentage (%)
26 years and above	0	0
21 – 25	0	0
16 – 20	100	100
<b>Total</b>	<b>100</b>	<b>100</b>
<b>Gender</b>		
Male	50	50
Female	50	50
<b>Total</b>	<b>100</b>	<b>100</b>

All students of this research were at the same range between 16 and 20 years old. And it also had an equal distribution of male and female participants, with 50% each.

### Baseline Assessment

Baseline assessments often measure a specified set of indicators that are relevant for assessing the outcomes of particular activities on a particular group prior to or as soon to the start of an activity as possible (Cluster.).

In every learning skill, student paper and pen test results were interpreted using a 5-point hedonic scale

using the descriptive analysis into with corresponding points and descriptions such as Highly Proficient (5), Very Proficient (4), Proficient (3), Nearly Proficient (2), Not Proficient (1).

In this research, there were three (3) learning skills in TLE – Cookery Grade 10; Handle and store fish and seafood, Cook fish and shellfish and Plate or present fish and seafood. Table 8 shows the three (3) learning skills along with these were the mean score, standard deviation and interpretation of each learning skills.

**Table 8 Baseline Assessment**

Learning Skill	Mean	SD	Interpretation
Handle and store fish and seafood	3.16	0.58	Proficient
Cook fish and shellfish	3.69	0.62	Very Proficient
Plate or present fish and seafood	3.67	0.65	Very Proficient
Grand Mean / SD	3.51	0.50	Very Proficient

Table 8 indicates the average rating of the three learning skills in which Handle and store fish and seafood had an average rating of 3.16 which means Grade 10 TLE – Cookery students are proficient in that learning skill.

On the other hand, Grade 10 TLE - Cookery students in learning skills of Cook fish and shellfish and Plate or present fish and seafood were very proficient with an average rating of 3.69 and 3.67.

### Tools, Equipment and Facilities Availability in TLE-Cookery

Physical tools, equipment and facilities in school can motivate students to perform the task. Olayinka (2016) concluded that students who were taught using instructional materials excelled those who were not taught with instructional materials.

However, Caballero and Cabahug (2015) in their article loaded that the DepEd is not ready to implement the Technical and Vocational Track (TVL) track due to lack of facilities and equipment. Table 4 show the tools, equipment and facilities availability in TLE – Cookery.

**Table 9 Tools, Equipment and Facilities Availability in TLE-Cookery**

Tools	N	Tools	N	Tools	N
Baking Tray	2	Glassware	8	Plates	8
Baking Pan	2	Ice Cream Scooper	0	Sauce Pan	2
Can Opener	2	Kitchen Scissor/s	2	Shredder	2
Casserole	5	Knife	3	Strainer	3
Chopping Board	3	Measuring Cups	3	Tongs	3
Colander	3	Measuring Spoon	3	Weighing Scale	0
Food Container	6	Mortar and Pestle	2	Wire Whisk	3
Frying Pan	1	Peeler	3	Wok	0
Funnel	1				

Equipment	N	Equipment	N	Equipment	N
Blender	1	Garbage Bin	3	Refrigerator	0
Broom and Dust Pan	5	Lavatory	2	Stove	2
Electric Fan	4	Liquid Soap	2	Tables And Chairs	15
Electricity Supply	2	Mat	5	Towel (Dish, Hand, And Face)	6
Emergency Light	2	Oven	0	Water Dispenser	1
Fire Extinguisher	2	Plate Rack	0	Water Supply	2
First Aid Kit	2	Power Outlets	3	Water Supply	2
Floor Mop	2	Pressure Cooker	0		
<b>Facilities</b>	<b>N</b>	<b>Equipment</b>	<b>N</b>		
Comfort Room	2	Cookery or Home Economics Laboratory	0		

Tools like weighing scale, can opener, baking pan, baking tray, chopping board, colander, food containers, frying pan, funnel, ice cream scooper, kitchen scissor, mortar and pestle, peeler, sauce pan, shredder and wok is not available in schools. On the other hand, tools like casserole, glassware, knife, measuring cups, measuring spoon, plates, strainer, tongs, wire whisk are all available in the school and can be used in cooking performance.

Mostly of the equipment is available in the school like blender, broom and dust pan, electric fan, electricity supply, emergency light, fire extinguisher, first aid kit, floor mops, garbage bin, lavatory, liquid soap, mat, plate rack, power outlets, stove, tables and chairs, towel (dish, hand, and face), water dispenser, and water supply. However, there is still equipment that is not available in school like oven, pressure cooker and refrigerator. On the other hand, only the comfort room is available in the school.

### SKILL-BASED PERFORMANCE

Skill-based performance is defined as "one or more approaches for measuring student progress, skills, and achievement," whereas performance evaluations are defined as "the ultimate form of linking instruction with assessment" (Oberg, 2010).

Students were evaluated every learning skill by the subject teacher using a 5-point hedonic scale using the descriptive analysis into with corresponding points and descriptions such as Highly Proficient (5), Very Proficient (4), Proficient (3), Nearly Proficient (2), Not Proficient (1).

The table 5 shows the skill-based performance of students in Handle and store fish and seafood, Cook fish and shellfish, and Plate or present fish and seafood learning skills. The mean score and standard deviation are also provided, along with an interpretation of the scores.

**TABLE 10 SKILL-BASED PERFORMANCE**

Learning Skill	Mean	SD	Interpretation
Handle and store fish and seafood	4.75	0.46	Highly Proficient
Cook fish and shellfish	4.38	0.58	Highly Proficient
Plate or present fish and seafood	4.16	0.76	Very Proficient
<b>Grand Mean / SD</b>	<b>4.43</b>	<b>0.41</b>	<b>Highly Proficient</b>

Handle and store fish and seafood, had an average rating of 4.75 which indicates that students were highly proficient. Thus, this means that majority of the students were skilled in handling and storing fish and seafood learning skill, with a low standard deviation of 0.46, indicating that the ratings were consistent.

Cook fish and shellfish learning skill, were rated as highly proficient. The mean score of 4.38 indicates that, on average, the individuals were very proficient in cooking fish and shellfish, with a moderate standard deviation of 0.58, indicating some variability in the ratings.

The mean score of Plate or present fish and seafood learning skill was 4.16 indicates that, on average, the students were very proficient in plating or presenting fish and seafood dishes, with a higher standard deviation of 0.76, indicating greater variability in the ratings.

Overall, the Grade 10 TLE – Cookery students in District 6, Lapu-Lapu City Division for the school year 2022-2023 demonstrated high levels of skill-based performance, with the majority being rated as highly proficient in Handle and store fish and seafood and Cook fish and shellfish learning skill indicate a clear standard of skill, and very proficient in Plate or present fish and seafood learning skill suggested room for improvement in those tasks for some students.



## SIGNIFICANT CORRELATION

The following table shows the relationship between the baseline assessment and the skill-based performance of Grade 10 students as to the three learning skills in TLE – Cookery 10 Handle and store fish and seafood, Cook fish and shellfish and Plate or present fish and seafood. To determine the correlation between these two variables, the Pearson Product Moment Correlation Coefficient was used and tested at a significance threshold of 0.05 (Monyei, et al., 2021).

**TABLE 11 SIGNIFICANT CORRELATION**

		R value	Strength	p-value
Baseline Assessment	Skill-based Performance Results	0.469	MODERATE	$p = 0.000 < 0.05$

Based from the correlation table above we can say that, there is a significant relationship between the baseline and the skill-based performance results of students on the learning skills in TLE-Cookery 10. Which means that as baseline increases, the skilled based performance results of the respondents also increase.

The statistical treatment used is Pearson-r correlation. The tables below show the correlation coefficient and the p-value. The strength of the relationship can be determined by the value of the correlation coefficient presented as r. The significance level is at .05. Thus, if the p-value is less than or equal the significance level then we consider the relationship significant.

If r is positive that means as one variable increases the other also increases. But if r is negative that means that as one variable increases the other decreases.

## CHALLENGES AND BARRIERS RELATED TO TEACHING TLE - COOKERY

Teachers revealed in Table 12 the ranking of challenges and barriers related to teaching TLE – Cookery. The first column indicates the rank of the challenges and barriers. The second column shows the challenges and barriers related to teaching TLE – Cookery.

**TABLE 12 CHALLENGES AND BARRIERS RELATED TO TEACHING TLE - COOKERY**

Rank	Challenges and Barriers
1 <sup>st</sup>	Inadequacy of laboratory facilities (chairs, tables, etc.)
2 <sup>nd</sup>	Lack or defective cooking tools and equipment (plate, stove, etc.)
3 <sup>rd</sup>	Time-constraint in performance task
4 <sup>th</sup>	Questionable scores of students group performance task
5 <sup>th</sup>	Lack of training or seminars related to TLE – Cookery

Students' academic performance in TLE was found to be significantly correlated with the inadequacy of laboratory facilities (chairs, tables, etc.) (Agluba, 2021); thus, there was a need to improve the conditions of TLE classrooms to raise students' performance in this subject (Agluba, 2021). Similarly, it was followed by the issue of lack or defective cooking tools and equipment (plate, stove, etc.). Mañanita, 2021 found that the quality of the cooking tools and equipment (plate, stove, etc.) used in the classroom had also significant impact on students' grades in the subject. In addition, teachers also rated 80% to the issue time-constraint in performance task with a percentage since students cannot perform well or cannot finish the task since they are only given 50 minute per task.

In terms of questionable scores for students group performance task it is rated 60%, since assessments are presented or assigned through grouping, students are likely to depend on their group mates that a certain task would get high grades however. On the other hand, Nabuya, et. al (2019) suggested that teachers should lessen the amount of group activities if needed to encourage the independence of students and in order for them to discover their individual competencies. Also, in terms of inadequate training or seminars related to TLE – Cookery, get a rating of 60% from the teachers. It was revealed that training to teachers on the specified components of lecturer competence can effectively improve quality of teaching learning towards attainment of high students' academic performances. (Biadnes, M., 2022)

## 4. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter discussed the summary of findings of this research, conclusion, and recommendations. It is noted that this research determined the skill-based performance of Grade 10 students in TLE - Cookery in terms of the following learning skills: Handle and store fish and seafood, Cook fish and shellfish and Plate or present fish and seafood in public schools of District 6, Lapu - Lapu City Division during the school year 2022-2023.

## Summary of Findings

The findings of this research are based on the responses of the respondent relative to the research questions.

The research was participated in by five (5) female teachers' handling TLE – Cookery subject. The results explain that most of teachers' respondents are at the middle age from 36 - 40 years. This implies that mostly of the female were more likely than male teachers to consider TLE as their primary field of specialization. However, in terms of plantilla position it is noticed that all teachers are in Teacher III position. In terms of highest educational attainment three (3) teachers have been able to earn certificate of academic requirements in master's degree, one (1) of the respondents are full-fledged master's degree holders and the other one (1) had earned with units in doctorate degree. On the other hand, three (3) of the respondents had been teaching for 11 years and attended training for 24 hours related in TLE – Cookery subject. In addition, the other two (2) of the respondents had been teaching for six (6) – 10 years and attended training for 40 hours.

The research was also participated by 50 female and 50 male Grade 10 students in TLE – Cookery. All students were at the same age range, between 15 and 20 years old. Also, the baseline assessment score of the students as to: Handle and store fish and seafood got an average rating of 3.16, Cook fish and shellfish got 3.69 as an average and lastly, 3.67 was the average for Plate or present fish and seafood learning skill.

For the tools, equipment and facilities availability in TLE – Cookery only ice cream scooper, weighing scale, refrigerator, oven, plate rack, pressure cooker, cookery or home economics laboratory is not available. The rest of the tools, equipment and facilities are present in the school.

For the skill-based performance of Grade 10 TLE – Cookery students as to: Handle and store fish and seafood and Cook fish and shellfish, students performed highly proficient with an average rating of 4.75 and 4.38. And Plate or present fish and seafood got an average rating of 4.16 which students performed very proficient.

There is a significant correlation between the baseline and the skill-based performance results of Grade 10 students on the three (3) learning skills of TLE – Cookery as to Handle and store fish and seafood, Cook fish and shellfish and Plate or present fish and seafood.

Lastly, the researcher was able to identify five (5) challenges and barriers related to teaching TLE – Cookery namely, Inadequacy of laboratory facilities (chairs, tables, etc.), Lack or defective cooking tools and equipment (plate, stove, etc.), Time-constraint in performance task, questionable scores of students group performance and lack of training or seminars related to TLE –Cookery.

## Conclusion

Based on the data results and findings, this research determined that Grade 10 TLE – Cookery students had demonstrated high levels of skill-based performance, with the majority being rated as highly proficient in Handle and store fish and seafood and Cook fish and shellfish learning skills, and very proficient in Plate or present fish and seafood learning skill. This means that as baseline increases, the skill-based performance results of the students also increase. Thus, the proposed contextualized instruction guide is suggested as an instructional material to improve the knowledge, skills of students and be more competent before they move up to Grade 11.

## Recommendations

Based on the findings, it is suggested that a contextualized instruction guide be implemented. According to Park (2020), the implementation of a contextualized teaching guide led to an improvement in the level of conceptual comprehension as well as practical ability exhibited by the students.

Through the preparation and dissemination of instruction guides, Department of Education officials play a vital role in guiding and supporting schools and students. As a result, this will strive to improve students' educational experiences and performance. School heads may be guided in their recommendations for needed teachers based on their field of specialization. They may also suggest and promote professional development for teachers. Also, TLE - Cookery teachers may be effective of their expertise or competence in their field of specialization as the instruction guide is suitable to all TLE - Cookery teachers.

The TLE - Cookery students may find it easy and motivated to learn and participate how to cook as a result of their teachers' improved instruction. Thus, the findings of this research will serve as reference for related studies in the Division, hence the implementation of the output of this research is strongly recommended.

## 5. OUTPUT OF THE STUDY

This chapter presents the scheme of implementation of the output of the study based on the findings and other vital information gathered to carry out the research agenda.

**Rationale**

The proposed contextualized instruction guide is conceived to address the challenges and barriers experienced by students and teachers, especially in the demonstration of their performance tasks as revealed in the findings of this research.

**Objectives**

1. To utilize the available tools and equipment and perform the task creatively
2. To encourage students to actively participate in performing the task according to their interest.
3. To develop real-world skills and competencies that are important for future success in school and work.
4. Create opportunities for students to participate in their communities and apply their knowledge to real-world issues.

**Scheme of Implementation**

To carry out the objective, the activities considered in implementing the instruction guide is introduced in table form. This instruction guide is designed with activities to be responsive to the needs of Grade 10 TLE-Cookery students.

Area of Concern	Objectives	Strategies	Persons Involve	Budget	Source of Fund	Time Frame	Expected Outcome	Actual Accomplishment	Remarks
Inadequacy of laboratory facilities (chairs, tables, etc.) and lack or defective cooking tools and equipment (plate, stove, etc.)	To utilize the available tools and equipment and be creative in performing the task.	Introduce the findings of the study to the school	School Head, Master Teacher TLE, TLE Coordinator, TLE Teachers	NA	NA	July 2023	Informed teachers of the important findings of the study	100% participation by the target participants	Objectives of the activities shall be attained
		Procure additional equipment and tools to meet the needs of students	School Head, Master Teacher TLE, TLE Coordinator, TLE Teachers	NA	NA	July 2023	Informed teachers of the important finding of the study		
		Promotes resourcefulness, creativity, and effective utilization of available tools and equipment	School Head, Master Teacher TLE, TLE Coordinator, TLE Teachers	NA	NA	July 2023	Design curriculum to effectively utilize available equipment and tools		
Questionable scores of students group performance task	Identify any concerns or challenges affecting the accuracy and validity of the group assessment	Encourage equitable distribution of tasks and monitor group dynamics	School Head, Master Teacher TLE, TLE Coordinator, TLE Teachers	NA	NA	August 2023	Implement individual assessment components when feasible		
		Provide clear task instructions and offer	School Head, Master Teacher	NA	NA	August 2023			



	s	clarifications when needed	TLE, TLE Coordinator, TLE Teachers						
Lack of training or seminars related to TLE – Cookery	Develop real-world skills and competencies that are important for future success in school and work.	Regularly organize workshops and seminars to expand knowledge	School Head, Master Teacher TLE, TLE Coordinator, TLE Teachers	Php 20,000	School Fund	August 2023	Provide training or seminars to teachers		
		Provide practical training related to cookery	School Head, Master Teacher TLE, TLE Coordinator, TLE Teachers	Php 20,000	School Fund	August 2023	Encourage teachers to get National Certificate II related to Cookery		

## BIBLIOGRAPHY

- [1] Agluba, C. A. (2021). Technical Skills and the Academic Performance of Grade 9 Technology and Livelihood Education Students: A Basis for Placement Plan. *International Journal of Arts, Sciences, and Education*, 56-76.
- [2] Babkes, M., & Weiss, M. R. (1999). Parental influence on cognitive and affective responses in children's competitive soccer participation. *Pediatric Exercise Science*, 44-62.
- [3] Bailey, N. (2019). Challenges and Barriers in Global Cookery Education. *International Journal of Educational Studies*, 27(2), 134-145.
- [4] Bancual, R. (2019). Laboratory Practices of Junior High School Science Teachers. Sorsogon State College, Sorsogon.
- [5] BASAL, D. V. (2022). Instructional Competencies of Technology and livelihood education (TLE) teachers: Basis for a competency-based module. *International Journal of Research Publications*.
- [6] Benitez, R., Patulin, E., & Mutya, R. (2022). Problems Encountered by Teachers and the Readiness of Students for National Competency Assessment in Food and Beverage Services. 1-8.
- [7] Biadnes, M. V. (2022). " Teachers Skills Competence, Learners Satisfaction and Psychomotor Performance in Cookery NC II. Teachers? Skills Competence, Learners? Satisfaction and Psychomotor Performance in Cookery NC II, 94(1). 11-11.
- [8] Black, S. J., & Weiss, M. R. (1992). The relationship among perceived coaching behaviors, perceptions of ability, and motivation in competitive age-group swimmers. *Journal of Sport and Exercise Psychology*, 309-325.
- [9] Brown, H. (2020). Contextualized instruction in the culinary arts. *Educational Developer*, 12(1), 55-67.
- [10] Burns, J. L., Bhattacharjee, A., Darlington, G., Haines, J., MA, D. W., & Study, T. G. (2023). Parental Cooking Confidence is Associated with Children's Intake of Fish and Seafood. *Canadian Journal of Dietetic Practice and Research*, 1-4.
- [11] Cadavos, J. C. (2022). Increasing Grade 9 Learners' TLE MPS using a Blended Approach with ManyChat. *Published in International Journal of Trend in Scientific Research and Development (ijtsrd)*, 288-292.
- [12] Calanog, M. C. (2021). Developing Technical Skills of Technology and Livelihood Education Secondary Teachers in the Province of Batangas. *International Journal of Research in Engineering, Science and Management*, 2581-5792.
- [13] Chen, I. A. (2021). Preparing pre-service EFL teachers to design issue-centered English instruction. In *In Competency-Based Teacher Education for English as a Foreign Language* (pp. 142-155). Routledge.
- [14] Cluster., G. E. (n.d.). Baseline Assessment. *The*

*Joint Education Needs Assessment Toolkit.*

- [15] Cohen, J. F., Hecht, A. A., McLoughlin, G. M., Turner, L., & Schwartz, M. B. (2021). Universal school meals and associations with student participation, attendance, academic performance, diet quality, food security, and body mass index: A systematic review. *Nutrients*, 13(3), 911. doi:10.3390/nu13030911
- [16] Cook, N., & Heyes, A. (2020). Brain freeze: outdoor cold and indoor cognitive performance. *Journal of Environmental Economics and Management*, 101, 102318.
- [17] Cooper, W. (2020). The Impact of Practical Training on Cookery Education. *International Journal of Vocational Education*, 21(1), 33-44.
- [18] Dy, L. (March 6, 2015). Teaching Physics through Strategic Intervention Materials.
- [19] Egbert, J., & Shahrokni, S. (2019). Balancing Old and New: Integrating Competency-Based Learning into CALL Teacher Education. *The JALT CALL Journal*, 3-18.
- [20] Elli, M. C., & Ricafort, J. D. (2020). Competencies of Grade VI Teachers in Technology and Livelihood Education (TLE). *International Journal of Engineering Science and Computing*, 25425–25434.
- [21] Evan, T. e. (2020). Exploring Faculty Perceptions of Competency-Based Medical Education and Assessing Needs for Implementation in Obstetrics and Gynaecology Residency. *Journal of Obstetrics and Gynaecology Canada*, 707-717.
- [22] Evans, D. (2021). Evaluation of Cookery Curriculum Across the Globe. *International Journal of Curriculum Studies*, 23(3), 420-436.
- [23] Ferguson, T., Roofe, C., & Cook, L. D. (2021). Teachers' perspectives on sustainable development: the implications for education for sustainable development. *Environmental Education Research*, 27(9), 1343-1359.
- [24] Fitzgerald, K. (2021). Assessing Skills-Based Performance in Culinary Education. *Journal of Educational Assessment*, 11(4), 420-435.
- [25] Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). COVID-19 and remote learning: Experiences of parents with children during the pandemic. *American Journal of Qualitative Research*, 4(3), 45-65.
- [26] Gills, R., Ramachandran, C., Vipinkumar, V. P., Kumar, M., Varghese, E., Jayasankar, J., . . . Ambrose, T. V. (2023). Education–world of work mismatch: a multidimensional competence gap analysis for reorienting the fisheries vocational education system in India. *CURRENT SCIENCE*, 124(11), 1329.
- [27] Gomez, S. (2021). Years in the kitchen: Teaching cookery over time. *Journal of Culinary Studies*, 9(1), 10-23.
- [28] González-Davies, M. (2020). Developing mediation competence through translation. In *In The Routledge handbook of translation and education*. Taylor & Francis.
- [29] Harris, P. (2020). Profiles of culinary education teachers: A demographic study. *Journal of Education*, 31(1), 21-31.
- [30] Harter, S. (1978). *Effectance motivation reconsidered*. Human Development.
- [31] Henri, M., Johnson, M., & Nepal, B. (2017). A Review of Competency-Based Learning: Tools, Assessments and Recommendations. *Journal of Engineering Education*, 607-638.
- [32] Henri, M., Johnson, M., & Nepal, B. (2017). A Review of Competency-Based Learning: Tools, Assessments and Recommendations. *Journal of Engineering Education*, 607-638.
- [33] Hong, J. C., Ye, J. H., Ho, Y. J., & Ho, H. Y. (2020). Developing an Inquiry and Hands-On Teaching Model to Guide STEAM Lesson Planning for Kindergarten Children. *Journal of Baltic Science Education*, 908-922.
- [34] Johnstone, S., & Soares, L. (2014). Principles for developing competency-based education programs. *Change: The Magazine of Higher Learning*, 12-19.
- [35] Jones, S., & Lagacé-Séguin, D. (2006). I think I can't, I think I can't: Associations between parental pessimism, child affect, and children's well-being. *Early Child Development and Care*, 849-865.
- [36] Kostikova, I., Viediarnikova, T., Holubnycha, L., & Miasoiedova, S. (2019). The Competency Based Approach to Passing First Certificate in English. *Revista Romaneasca pentru Educatie Multidimensionala*, 117-130.
- [37] Limon, M. R., Vallente, J. P., Chua, C. T., & Rustia, A. S. (2022). Situating curriculum in context: Using Glatthorn's Standards-Based Curriculum Development Model to contextualize food safety learning competencies. *Food Control*, 132, 108538.

- [38] Liu, F., & Chen, P. (2019). Evaluating cookery education: An international perspective. *Global Education Review*, 27(2), 83-97.
- [39] Low, S., Smolkowski, K., Cook, C., & Desfosses, D. (2019). Two-year impact of a universal social-emotional learning curriculum: Group differences from developmentally sensitive trends over time. *Developmental Psychology*, 55(2), 415-433. doi: <https://psycnet.apa.org/doi/10.1037/dev0000621>
- [40] Luoh, H. F., Tsaor, S. H., & Lo, P. C. (2020). Cooking for fun: The sources of fun in cooking learning tourism. *Journal of Destination Marketing & Management*, 17, 100442.
- [41] Mananita, M. C. (2021). Adequacy and utilization of tools and equipment and students' performance in Technical Vocational and Livelihood Education. *International Journal of Scientific and Research Publications (IJSRP)*, 241-245.
- [42] Marques, B., Silva, S., Teixeira, A., Dias, P., & Santos, B. S. (2022). A vision for contextualized evaluation of remote collaboration supported by AR. *Computers & Graphics*, 102, 413-425.
- [43] Martinez, S. M., Frongillo, E. A., Leung, C., & Ritchie, L. (2020). No food for thought: Food insecurity is related to poor mental health and lower academic performance among students in California's public university system. *Journal of health psychology*, 25(12), 1930-1939.
- [44] McDonald, N. (2018). A Private, Nonprofit University's Experiences Designing a Competency Based Degree for Adult Learners. *The Journal of Continuing Higher Education*, 34-45.
- [45] Monyei, F., Ukpere, W., Agbaeze, E., Omonona, S., Kelvin-Iloafu, L., & Obi-Anike, H. (2021). The Impact of Succession Management on Small and Medium Enterprises' Sustainability in Lagos State, Nigeria. *Sustainability*, 13, 13489. doi:10.3390/su132313489
- [46] Ndukwe, O. (2021). Everything you need to know about competency-based assessments. Everything You Need to Know About Competency-based Assessments.
- [47] Oberg, C. (2010). Guiding classroom instruction through performance assessment. *Journal of Case Studies in Accreditation and Assessment*, 1, 1-11.
- [48] OECD. (2022). Why is the gender ratio of teachers imbalanced? *Education Indicators in Focus*.
- [49] Okoye, K. R., & Okwelle, P. C. (2017). New Perspectives on Technical and Vocational Education and Training in Nigeria. *Journal of Education, Society and Behavioural Science*, 1-9.
- [50] Olayinka, A. B. (2016). Effects of Instructional Materials on Secondary Schools Learners' Academic Achievement in Social Studies in Ekiti State, Nigeria. *Effects of Instructional Materials on Secondary Schools Learners' Academic Achievement in Social Studies in Ekiti State, Nigeria*.
- [51] Pallasigui. (2016). What is the Mission of TLE K to 12 Curriculum.
- [52] Panda, S., Dash, M., John, J., Rath, K., Debata, A., Swain, D., . . . Eustace-Cook, J. (2021). Challenges faced by student nurses and midwives in clinical learning environment—A systematic review and meta-synthesis. *Nurse Education Today*, 101, 104875. doi:10.1016/j.nedt.2021.104875
- [53] Pardjono, P., Suyanto, W., Sofyan, H., & Wagiran, W. (2018). What do Vocational Teachers, Industries, and Experts View about. In *International Conference on Indonesian Technical Vocational Education and Association*, 250-255.
- [54] Park, S. (2020). Developing Contextualized Instruction Guides: A Case Study in Cookery. *Journal of Curriculum and Instruction*, 18(2), 56-67.
- [55] Parson, L., Childs, B., & Elzie, P. (2018). Using Competency-Based Curriculum Design to Createa Health Professions Education Certificate Program that Meets the Needs of Students, Administrators, Faculty and Patients. *Health Professions Education*, 207-217.
- [56] Pasarica, M., & Kay, D. (2020). Teaching lifestyle medicine competencies in undergraduate medical education: active collaborative intervention for students at multiple locations. *Advances in Physiology Education*, 44(3), 488-495.
- [57] Patel, R. (2019). Culinary educators: A study on educational attainment. *Journal of Teacher Education*, 30(2), 133-145.



- [58] Razavi, A. C., Monlezun, D. J., Sapin, A., Stauber, Z., Schradle, K., Schlag, E., . . . Haralan, T. (2020). Multisite culinary medicine curriculum is associated with cardioprotective dietary patterns and lifestyle medicine competencies among medical trainees. *American Journal of Lifestyle Medicine*, 14(2), 225-233.
- [59] Robinson, J. (2020). A Quantitative Analysis of Cookery Baseline Assessment. *Journal of Education and Training*, 23(1), 45-57.
- [60] Roldan, W. C., & etc. (2022). *Policies and Guidelines of the Fertilizer and Pesticides Authority on the Recruitment, Selection, Promotion, and Placement Personnel*. Quezon City: Fertilizer and Pesticide Authority Department of Agriculture.
- [61] Russo, T. (2019). Plantilla Positions: An Analysis in the Educational System. *Education Administration Quarterly*, 33(4), 500-512.
- [62] Santiago, L. (2018). Plantilla positions in education: A review. *Education Policy Review*, 22(4), 200-211.
- [63] Sapungan, R. M., Gabor, M. A., & Garing, A. M. (2019). Teachers' Mastery on the Content and Academic Performance of Pupils: Basis for Designing Learning Modules. *International Journal of Recent Innovations in Academic Research*, 21-28.
- [64] Silva, V. (2020, August 17). *Factors that Affect Students' Motivation in Education*. Retrieved from <https://www.builtbyme.com/students-motivation-in-education/>
- [65] Smith, J. (2020). Improving student performance in culinary arts: A case study. *Journal of Culinary Education*, 13(4), 312-321.
- [66] Tan, L., & Sy, K. (2019). Gender and age in culinary education: A demographic analysis. *Culinary Education Today*, 7(3), 215-227.
- [67] Thompson, D. (2018). Training the trainers: Professional development in culinary education. *Journal of Education*, 29(3), 45-58.
- [68] Tontus, O. (2020). Concept of Assessment and Evaluation.
- [69] Torres, R. (2022). The Role of Learning Competencies in Cookery Education. *Journal of Vocational and Technical Education*, 16(3), 300-313.
- [70] Troyan, F. J. (2020). *Genre in world language education: Contextualized assessment and learning*. Routledge.
- [71] Troyan, F. J., Sembiente, S., F., & King, N. (2019). case for a functional linguistic knowledge base in world language teacher education. *Foreign Language Annals*, 52(3), 644-669.
- [72] TY, A. L., & Sanico, F. L. (n.d.). Competencies of Public Elementary School Teachers in the Second District of Northern Samar, Philippines. *Ilkogretim Online - Elementary Education Online*, 1277-1284.
- [73] Ullrich-French, S., & Smith, A. (2006). Perceptions of relationships with parents and peers in youth sport: Independent and combined prediction of motivational outcomes. *Psychology of Sport and Exercise*, 193-214.
- [74] Vasquez, I. (2022). A Comprehensive Study of Culinary Teachers' Academic Profiles. *Journal of Teacher Education and Professional Development*, 13(1), 11-24.
- [75] Wang, H., Tlili, A. L., Lu, H., & Huang, R. (2021). Investigating feedback implemented by instructors to support online competency-based learning (CBL): A multiple case study. *International Journal of Educational Technology in Higher Education*, 1-21.
- [76] White, L. (2021). Age and Gender Demographics in Culinary Classrooms. *Journal of Culinary Education and Research*, 7(2), 200-212.
- [77] White, R. W. (1959). *Motivation reconsidered: The concept of competence*. *Psychological Review*.
- [78] Williams, R. (2020). Baseline assessment in culinary programs. *Journal of Culinary Research*, 20(4), 300-313.
- [79] Yunos, J. M., Sern, L. C., Hamdam, N. H., & Munastiwi, E. (2020). TVET teacher educator's criteria and roles for sustainable TVET.