

# CUISINE DE SANTÉ: A SUPPLEMENTARY VIDEO AS A TEACHING TOOL TO INCREASE QUALITY EXPERIENCE OF LEARNING IN COOKERY

MELISSA ANN C. BAQUIRAN  
melissabaquiran54@gmail.com  
Laguna State Polytechnic University, Philippines

## **ABSTRACT**

The purpose of this study was to develop a supplementary video in cookery in the subject area of Technology and Livelihood Education. This study sought to answer the following questions. First, what is the status of supplementary video components in terms of objectives, contents and assessment? Second, what is the status of supplementary video characteristics in terms of accessibility, audio, length of presentation and visual elements? Third, what is the level of quality of experience by using a video as a supplementary tool in terms of instructional effectiveness, skill development and satisfaction? Fourth, what is the level of students' laboratory performance as to practical test? Fifth, is there a significant relationship between the components and characteristics of the supplemental video to the quality of experience of the respondents? and lastly, is there a significant effect between the components and characteristics of the supplemental video to the laboratory performance of the respondents?

The respondents of the study were the Grade 9 students of Liceo de Pila, Pila Laguna. A descriptive correlational research design was chosen as the research method for this study. On the other hand, the researcher used descriptive survey method of research in assessing the level of video components and characteristics in TLE specialized in cookery.

Based on the data gathered, the following were the significant findings of the study; the status of supplementary video components in terms of objectives, content and assessment were all very high as verbal interpretation. The status of supplementary video characteristics was described in terms of accessibility, length of presentation and visual elements were all high as verbal interpretation and the audio was interpreted as very high. The level of quality of experience by using video as a supplementary tool in terms of skill development and satisfaction were high thus the instructional effectiveness resulted as very high.

The components and characteristics of the supplementary video and the quality of experience in terms of objectives, content, assessment, accessibility, audio, length of presentation and visual elements resulted in significant analysis. On a different note, a significant analysis was revealed on the effect of supplementary video characteristics in terms of audio, length of presentation and visual effects except only for accessibility on the laboratory performance of the students. And also, the components of the supplementary video in terms of objectives, content and assessment do not significant affect the laboratory performance of the students.

The characteristics and components of the supplementary video have significant relationship to the quality of experience in teaching TLE specialized in Cookery. Therefore, the null hypothesis is rejected. And the components and characteristics of the supplemental video regards to objectives, content, assessment, accessibility, audio, length of presentation and visual elements have partially sustained the research hypothesis, therefore the null hypothesis was partially accepted. Therefore, it is recommended that the supplementary videos used in teaching TLE specialized in cookery need to innovate and enhanced to bring out the best of students' performance.

## **Keywords:**

*Accessibility, Cuisine de Santé, Instructional effectiveness, Multimedia Lecture, Objectives, Skill Development, Visual Elements.*

## INTRODUCTION

Education is highly valued in Filipino society. For the vast majority of Filipinos, education is the sole way for a youngster to achieve and ensure a brighter future. They seek a more effective education system.

Therefore, when e-Learning became available in the Philippines, educational officials quickly opted to include it. Integrating video clips in multimedia lecture presentations may increase students' perception of important information and motivation for learning. Because of that, students can better understand and remember key points of a lecture. Students benefit from e-learning in a variety of ways. They have complete freedom to access content whenever and whenever they want, using whatever method they like. This adaptability helps pupils to study in a method that suits them best. They have the freedom to choose how they want to examine information, which accommodates a variety of learning styles.

The choice of acceptable video clips and the methods for displaying them inside instructional materials is a needed for curriculum design that leads to effective learning results. The cognitive theory of multimedia learning demonstrates that relevant information must be selected and organized into a verbal and graphical model. Organizing and presenting just relevant information using suitable teaching mediums and methods may also improve the efficiency of the self-learning process. In order to enhance the learning process, it is necessary to assess the effectiveness of using video-based teaching materials in distant learning environments and to track "viewer engagement." The quality of student satisfaction and experience depends on the method of usage of video clips in designing linear educational video materials.

Relative to the mentioned literature, the problem was drawn and became center of this research study. The purpose of this study was to see if these favorable aspects of e-learning have a relationship on student accomplishment especially in teaching Technology and Livelihood Education. Cuisine de Santé is a compilation of videos which can be use in teaching cookery, it is a set of videos which can help the learners to easily engaged with the topics in cookery and catch up the lessons especially in developing their skills. With the help of supplementary video clips may improve lecture organization and presentation in order to achieve effective teaching in teaching Technology and Livelihood Education specialized in cookery.

However, Teaching is teaching if learners learn. Learning is measured by its outcome. Whatever approach to teaching is used, the intent should focus on learning rather than teaching. Subjects do not exist in isolation, but links between them should be made. It is important that students learn how to learn, hence the teacher should be innovative. (Catapang, R.G., & Tuiza, A.V. 2022)

This also sought to determine the quality of experience in teaching one of the specializations in technology and livelihood education cookery by using supplementary video as teaching tool to selected grade 9 students of Liceo de Pila in Pila, Laguna as well as the relationship between the independent and dependent variables. The study sought to answer the following:

1. What is the status of supplementary video components in terms of:
  - 1.1. objectives;
  - 1.2. contents; and
  - 1.3. assessment?
2. What is the status of supplementary video characteristics in terms of:
  - 2.1 . accessibility;
  - 2.2 . audio;
  - 2.3 . length of presentation; and
  - 2.4 . visual elements?
3. What is the level of quality of experience by using a video as a supplementary tool in terms of:
  - 3.1. instructional effectiveness;

- 3.2. skill development; and
- 3.3. satisfaction?
4. What is the level of students' laboratory performance as to practical test?
5. Is there a significant relationship between the components and characteristics of the supplementary video to the quality of experience of the respondents?
6. Is there a significant effect between the components and characteristics of the supplementary video to the laboratory performance of the respondents?

## REVIEW OF RELATED LITERATURE

A diversity of literary considerations was given to show the concept of this study. The following literary works were mentioned to discuss the foundation of this research: cuisine de sant : a supplementary video as a teaching tool to increase quality of experience of learning in cookery Thus, the researcher considers the vital contribution of the following readings in pursuits of this research. Educational videos substantially help students learn all courses, but especially those that are difficult or highly visual, including problem-solving, step-by-step methods, or mathematical and scientific formulas. They improve communication and computer literacy skills, which are crucial 21st-century competencies.

Schacter and Szpunar (2015), to improve learning from educational videos, suggest a conceptual framework that recognizes online learning as a form of self-regulated learning. Students must monitor their own learning, recognize their own learning challenges, and react to these assessments in order to practice self-regulation of learning; In other words, it necessitates that students construct and critically analyze mental models while engaging in metacognition regarding the learning process.

Evaluating the effectiveness of the use of teaching materials in video format in distance learning environments and measuring of "viewer engagement" is important for the improvement of the learning process (Stiubiener et al., 2012)

As cited by Kwary (2018), states that extensive research prior to the pandemic has confirmed that the effectiveness of online learning is determined by a number of factors beyond the tools used, including students' interactions with the instructor and classmates. Online students may feel isolated due to reduced or lack of interaction. Therefore, in designing online learning experiences, it is important to remember that learning is a social process.

Students' emotional growth is aided by skill development and training. Student experimentation readiness is a requirement for learning new abilities.

As cited by ICSB (2015), Student's expectation is the best way to improve their satisfaction. It is possible to recognize student expectations to progress satisfaction level. Finally, the positive approach used in many online learning classes has been shown to place a high expectation on learners and has led to successful outcomes. Hence the hypothesis that expectations of the student significantly affect the satisfaction was included in this study.

According to Kay (2012), the outcomes of using supplementary videos are increasing student activity and efficiency of the teaching process. An important issue is establishing a methodology of embedding video clips in multimedia teaching material in order to improve the learning process of the students.

Furthermore, Positive effects of features of video clips (multi-sensory, dynamic and capable of engaging the viewer's attention) were often used in engineering education (Marques, 2012).

During online setup, it can bore the students since the interaction is minimal thus, it may be more effective to organize and deliver just pertinent material using the right teaching tools and approaches, according to research. This claim is supported by Steffes and Duverger (2012) and other mentioned authors above as they suggested to show entertainment videos to students is another strategy to engage and motivate students. They stress the significance of properly designing supplemental video content and the process of doing so.

As stated by Abdulla (2018), assessment is embedded in the learning process that provides reliable information in checking the progress and achievement of the learners. It highlights the opportunities to develop students' potential to evaluate themselves, to make perceptions about their own performance, and to improve upon it. Teachers can tell students which particular concepts and abilities they need to master when the assessments are in line with the learning objectives and content standards.

The ability to see, comprehend, interact with, and traverse electronic information is referred to as accessibility. It allows all users to participate fully in the digital environment.

According to Soares Guedes, L., & Landoni, M. (2020), The need to better understand how to support and provide accessibility has increased dramatically in recent years, whether in industry or education. Higher education institutions have an essential role in raising awareness of how important accessibility is and, at the same time, can provide students with examples of good practice in building inclusive experiences.

Technology utilization is a more recent component of course design that is becoming more well-liked as a result of positive student feedback and elevated learning satisfaction. The benefits of using audio, video, and mobile communication capabilities for students' online learning are substantial (Blau and Barak 2012).

Moreover, Yang Y. (2017), found out that the impact of videos in relation to their length has been examined in some research. The flexibility and convenience of the flipped classroom, which was aided by micro videos, encouraged in-class engagement and increased the effectiveness of instruction.

The length of the video can also affect the engagement of students, which is according to some video podcasts discussed in the related literature, the students claimed that lengthy video recordings took a lot of time, therefore they took a more deliberate approach to understand difficult concepts. Studies show that processing and memory recall is improved with shorter video parts.

Also, another research that looked at how well students could learn using graphic animation tools discovered that using graphic animations was more successful (Mat Rabi, 2016).

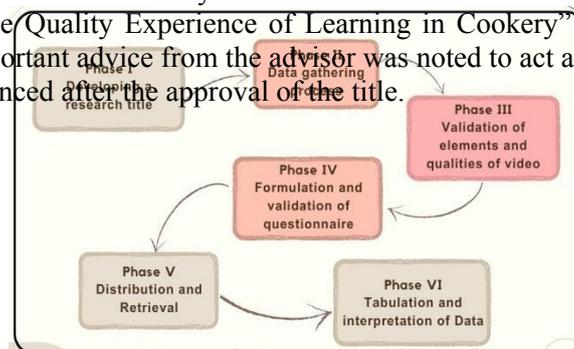
In the study named "Using of supplementary video as a teaching tool to boost quality students learning experience," the researcher's information on the pertinent literature is crucial and required. It strives to provide evidence for every component of the variable required to confirm that the claims made in this study are accurate and applicable to all studies that are based on the data. Any educational materials' overall aesthetic has a significant impact on how well students may discover, experiment with, and acquire new knowledge and abilities.

The vast majority of the studies reviewed used a quantitative, descriptive study design. On the other hand, several of them opted for a qualitative design.

## METHODOLOGY

As shown in the figure 3 below, the researcher developed a specific problem based on personal experiences as a guide to developing a research title, which allowed for the completion of this study.

The researcher entitled the study as "Cuisine De Santè: Using Supplementary Video as A Teaching Tool to Increase Quality Experience of Learning in Cookery" then submitted to the research adviser for approval. Important advice from the advisor was noted to act as a guide for the study. The data gathering process commenced after the approval of the title.



**Figure 3. Research Procedure**

In order to develop a concept on the elements and qualities of video to deliver a quality experience of learning in cooking specialty, the researcher sought information from a number of experts. Once the video about the kitchen of health was constructed by the researcher and then sent to specialists for initial assessment and evaluation in order to improve and modify the presentation. After the video was refined the researcher constructed the research tool which is a survey questionnaire in a form of Likert Scale, the researcher asked the school's principal and the head of TLE department. The questionnaire was validated by specialists. The researcher forwarded the questionnaire to the Language critic for grammar review after it had been validated. The researcher then developed a letter of permission to carry out research on the creation of instructional videos for the study, which was signed by the school principal. After the approval letter and was signed and the questionnaire was already validated, it was used by the Grade 9 students, the students were given a questionnaire to complete in order for them to assess, comment on, and recommend the supplementary video they utilized. After collecting the answered activities and questionnaires, the data based on the information was tabulated, analyzed and interpreted by the researcher.

## RESULT AND DISCUSSION

**Table 1. Status of Supplementary Video Components in terms of Objectives**

| STATEMENT  | Mean        | SD   | Remarks               |
|--|-------------|------|-----------------------|
| The objectives of the supplementary video are:   |             |      |                       |
| 1. The video goals are appropriate since they offer organized justifications that are in line with the curriculum guide. | 4.28        | 0.69 | Strongly Agree        |
| 2. Clearly states that results in learning are anticipated.  | 4.26        | 0.72 | Strongly Agree        |
| 3. Both quantifiable and doable.   | 4.03        | 0.68 | Agree                 |
| 4. Comprises the understanding, communication, and application of abilities and disposition.                             | 4.46        | 0.77 | Strongly Agree        |
| 5. The entire video accomplishes the main goal and is appropriate for students with various learning preferences.        | 4.42        | 0.68 | Strongly Agree        |
| <b>Grand Mean</b>  | <b>4.25</b> |      | <b>Strongly Agree</b> |
| <b>Interpretation</b>  |             |      | <b>Very High</b>      |

It was supported by Forrin et al. (2020) that discovered that interpolating learning objectives across a course can increase students' learning outcomes in comparison to offering no learning objectives at all. The learning module must have specific learning objectives because they help determine each student's level of success. The value of Video Components in terms of objective as a factor that influenced the efficacy of video lectures as a supplementary tool is to integrate a precise and clear objective of the whole presentation to provide a rich and engaging learning experience for students and the objective of must be distinct to students and teachers.

**Table 2. Status of Supplementary Video Components in terms of Content**

| STATEMENT   | Mean | SD   | Remarks        |
|---|------|------|----------------|
| The contents of the supplementary video are:  |      |      |                |
| Explicit instructions that are easy to follow.  | 4.30 | 0.72 | Strongly Agree |
| The video contents are crucial for students, since they presented pertinent debates on the topic, | 3.99 | 0.87 | Agree          |
| Appropriate for the students' level of comprehension.   | 4.26 | 0.72 | Strongly Agree |

|  |                  |      |                       |
|--|------------------|------|-----------------------|
| Encouraging students to develop their skills                         | 4.52             | 0.62 | Strongly Agree        |
| Explains the topic in detail and delivers a clear overview the same. | 4.45             | 0.67 | Strongly Agree        |
| <b>Grand Mean</b>  | <b>4.30</b>      |      | <b>Strongly Agree</b> |
| <b>Interpretation</b>  | <b>Very High</b> |      |                       |

The above table indicates the status of supplementary video components in terms of content. The respondents strongly agree that the video encouraging students to develop their skills, it obtained the highest ( $M=4.52$ ,  $SD=0.62$ ). However, the respondents agreed that the content of the supplementary video are crucial for students, since they presented pertinent debates on the topic, it yielded the lowest ( $M=3.99$ ,  $SD=0.87$ ).

It can be gleaned from table 2, that the status of supplementary video in terms of content is 4.30 with Very High as verbal interpretation. This means that the content of the module was relevant to the needs of the students that provide meaningful learning opportunity.

According to Ljubojevic et al. (2013), the definition of quality of experience gives a framework for analyzing the efficiency of delivery of video content. Video could be a useful tool for raising engagement levels and improving student learning. Relevance is necessary in providing a learning context. It will also help the students realize the value of the content of the learning video therefore, creating great content that will cater diverse learners takes a lot of creativity, time, and effort.

**Table 3. Status of Supplementary Video Components in terms of Assessment**

| STATEMENT  | Mean             | SD   | Remarks               |
|--|------------------|------|-----------------------|
| The Assessment of the supplementary video are:   |                  |      |                       |
| The instructions are both clear and precise to the students.   | 4.39             | 0.68 | Strongly Agree        |
| It provides analysis and demonstrates critical thinking ability.   | 4.23             | 0.74 | Strongly Agree        |
| Curriculum applied is congruent to the goal as expected to the course offered.                             | 4.13             | 0.80 | Agree                 |
| Provide them of challenging task performance that help them to reach highest potential and develop skills. | 4.31             | 0.68 | Strongly Agree        |
| Uses a variety of learning methods to encourage students.  | 4.40             | 0.69 | Strongly Agree        |
| <b>Grand Mean</b>  | <b>4.29</b>      |      | <b>Strongly Agree</b> |
| <b>Interpretation</b>  | <b>Very High</b> |      |                       |

Table 3 illustrates the status of supplementary video components in terms of assessment. Among the statements above, "The assessment of the supplementary video uses a variety of learning methods to encourage students." yielded the highest mean score ( $M=4.40$ ,  $SD=0.69$ ) and was remarked as Strongly Agree. This is followed by "The assessment of the supplementary video assessment instructions is both clear and precise to the students." with the mean score ( $M=4.39$ ,  $SD=0.68$ ) and were also remarked as Strongly Agree. On the other hand, the statement "The assessment of the supplementary video curriculum applied is congruent to the goal as expected to the course offered." received the lowest mean score of the respondents with ( $M=4.13$ ,  $SD=0.80$ ) and was remarked Agree.

Overall, status of supplementary video components in terms of objectives gained the grand mean of 4.29 and was interpreted Very High as evaluated by the respondents. This explains that students were able to recognize thoroughly the process in accomplishing their performance assessment.

As indicated by Abdulla (2018), assessment is embedded in the learning process that provides reliable information in checking the progress and achievement of the learners. Teachers should think about coming up with innovative ways to assess students' learning, give the feedback they need, and enhance their instructional strategies. With assessment, teachers can quickly identify students' strengths and weaknesses, offer the correct comments, and enhance their teaching strategies.

### Status of Supplementary Video Characteristics

The status of supplementary video characteristics was described in terms of accessibility, audio, length of presentation and visual elements and were determined by the weighted mean and standard deviation.

**Table 4. Status of Supplementary Video Characteristics in terms of Accessibility**

| STATEMENT   | Mean        | SD          | Remarks        |
|---|-------------|-------------|----------------|
| Being diverse of the learners.  | 4.11        | 0.68        | Agree          |
| Flexible that can be altered to fit different curriculums.                        | 4.10        | 0.75        | Agree          |
| Able to cope up with the discussions even when internet connection is not stable. | 3.88        | 0.97        | Agree          |
| Use colors thoughtfully and with good contrast.                                   | 4.28        | 0.66        | Strongly Agree |
| The media player and the video are both in an accessible format.                  | 4.20        | 0.67        | Strongly Agree |
| <b>Grand Mean</b>   | <b>4.11</b> |             | <b>Agree</b>   |
| <b>Interpretation</b>   |             | <b>High</b> |                |

Table 4 indicates the status of supplementary video characteristics in terms of accessibility. The respondents strongly agree that the video accessibility of the supplementary video use colors thoughtfully and with good contrast, it obtained the highest (M=4.28, SD=0.66). However, respondents agreed that the accessibility of the supplementary video are able to cope up with the discussions even when internet connection is not stable, it yielded the lowest (M=3.88, SD=0.97).

Overall, status of supplementary video characteristics in terms of accessibility gained the grand mean of 4.11 and was interpreted High as evaluated by the respondents.

According Blau and Barak (2012), technology utilization is a more recent component of course design that is becoming more well-liked as a result of positive student feedback and elevated learning satisfaction. The benefits of using audio, video, and mobile communication capabilities for students' online learning are substantial.

It enables individuals with impairments to interact with others without being labeled as "disabled" and to engage in activities that they might not be able to do otherwise. All people should be able to perceive, comprehend, engage with, and interact with electronic information in order to be full, active participants in the digital world.

**Table 5. Status of Supplementary Video Characteristics in terms of Audio**

| STATEMENT  | Mean | SD   | Remarks        |
|--|------|------|----------------|
| The audio of the supplementary video may:  |      |      |                |
| Supports interesting learning experiences and improves communication.                  | 4.32 | 0.70 | Strongly Agree |
| Elicits feelings, emphasizes what is on the screen, and is used to convey mood.        | 4.24 | 0.68 | Strongly Agree |
| Draw viewers into a distinctive universe, advance the plot, and communicate the story. | 4.19 | 0.69 | Agree          |
| Encourage curiosity and encouraging creative thinking.                                 | 4.41 | 0.66 | Strongly Agree |
| Perceive message clear and audible.  | 4.23 | 0.73 | Strongly Agree |

|                       |                  |                       |
|-----------------------|------------------|-----------------------|
| <b>Grand Mean</b>     | <b>4.28</b>      | <b>Strongly Agree</b> |
| <b>Interpretation</b> | <b>Very High</b> |                       |

Table 5 indicates the status of supplementary video characteristics in terms of audio. The respondents strongly agree that the audio of the supplementary video encourage curiosity and encouraging creative thinking, it obtained the highest ( $M=4.41$ ,  $SD=0.66$ ). However, respondents agreed that the audio of the supplementary video may draw viewers into a distinctive universe, advance the plot, and communicate the story, it yielded the lowest ( $M=4.19$ ,  $SD=0.69$ ).

Overall, status of supplementary video characteristics in terms of audio gained the grand mean of 4.28 and was interpreted Very High as evaluated by the respondents.

The audio is a crucial component of a well-made video that is frequently disregarded. Surprisingly, as long as the audio is of high quality, the project will still be watchable even if the video image quality is poor, such as blurry, badly framed, taken from a distance, or choppy.

Table 6 illustrates the status of supplementary video characteristics in terms of length of presentation. Among the statements above, "The length of the presentation can affect the span of attention when listening to the discussion." yielded the highest mean score ( $M=4.13$ ,  $SD=0.73$ ) and was remarked as Agree. On the other hand, the statement "When the recorded video lecture is too long, I am not able to finish them." received the lowest mean score of the respondents with ( $M=3.74$ ,  $SD=1.08$ ) and was remarked Agree.

**Table 6. Status of Supplementary Video Characteristics in terms of Length of Presentation**

| STATEMENT  | Mean        | SD   | Remarks      |
|--|-------------|------|--------------|
| The length of the presentation can:  |             |      |              |
| Affect the span of attention when listening to the discussion              | 4.13        | 0.73 | Agree        |
| Prefer a short video lectures per day.                                     | 4.02        | 0.89 | Agree        |
| Recommend short video lectures rather than lengthy presentation.           | 4.02        | 0.93 | Agree        |
| lengthy presentation makes me unable to focus on the discussion.           | 3.80        | 1.00 | Agree        |
| When the recorded video lecture is too long, I am not able to finish them. | 3.74        | 1.08 | Agree        |
| <b>Grand Mean</b>  | <b>3.94</b> |      | <b>Agree</b> |
| <b>Interpretation</b>  | <b>High</b> |      |              |

Overall, status of supplementary video characteristics in terms of length of presentation gained the grand mean of 3.94 and was interpreted High as evaluated by the respondents.

**Table 7. Status of Supplementary Video Characteristics in terms of Visual Elements**

| STATEMENT  | Mean | SD   | Remarks        |
|--|------|------|----------------|
| The visual elements of the supplementary video...  |      |      |                |
| features images appropriate for the interest level, knowledge and abilities of the intended students.                          | 3.97 | 1.00 | Agree          |
| enables the students to take part actively in their own education procedure.   | 4.18 | 0.84 | Agree          |
| can enhance your written thoughts and make difficult textual descriptions more understandable.                                 | 4.22 | 0.80 | Strongly Agree |
| emotionally affected viewers by visual components and has a text font, size, and color that are appropriate.                   | 4.06 | 0.84 | Agree          |
| Encourage students to connect ideas in order to quickly assimilate large amounts of course material and serve as a memory aid. | 4.18 | 0.79 | Agree          |

|                       |             |              |
|-----------------------|-------------|--------------|
| <b>Grand Mean</b>     | <b>4.12</b> | <b>Agree</b> |
| <b>Interpretation</b> | <b>High</b> |              |

The above table indicates the status of supplementary video characteristics in terms of Visual elements. The respondents strongly agree that the video can enhance your written thoughts and make difficult textual descriptions more understandable, it obtained the highest ( $M=4.22$ ,  $SD=0.80$ ). However, respondents agreed that the visual elements of the supplementary video features images appropriate for the interest level, knowledge and abilities of the intended students, it yielded the lowest ( $M=3.97$ ,  $SD=1.00$ ). Overall, status of supplementary video characteristics in terms of visual elements gained the grand mean of 4.12 and was interpreted High as evaluated by the respondents.

Increase audience engagement by include visual components in your video. They will continue to be on for an additional second whenever something appears. Your brain receives 90% of its information visually. Consider your video as a presentation as a result.

#### **Level of Quality of Experience by Using Video as a Supplementary Tool**

In this study, the level of quality of experience by using a supplementary video as a supplementary tool refer to the Instructional effectiveness, skill development and satisfaction. Presented in the table below was the level of quality of experience determined by the weighted mean and standard deviation.

Table 8 illustrates the level of quality of experience by using video as a supplementary tool in terms of instructional effectiveness. The respondents strongly agree that the level of quality experience in terms of instructional effectiveness can retain more information when watching recorded lectures rather than reading notes alone, it obtained the highest ( $M=4.31$ ,  $SD=0.67$ ). This is followed by the level of quality experience in terms of instructional effectiveness recorded lectures are very convenient since they can re watch it off line with the mean score ( $M=4.31$ ,  $SD=0.65$ ) and were also remarked as Strongly Agree. However, respondents agreed that the instructional effectiveness as level of quality experience promote the attention of the students from video lecture, it yielded the lowest ( $M=4.10$ ,  $SD=0.80$ ).

**Table 8. Level of Quality of Experience by Using Video as a Supplementary Tool in terms of Instructional Effectiveness**

| <b>STATEMENT</b>  | <b>Mean</b>      | <b>SD</b> | <b>Remarks</b>        |
|---|------------------|-----------|-----------------------|
| I can retain more information when watching recorded lectures rather than reading my notes alone. | 4.31             | 0.67      | Strongly Agree        |
| I can easily understand the lesson because of visual representations.                             | 4.19             | 0.76      | Agree                 |
| Recorded lectures are very convenient since I can re watch them offline                           | 4.31             | 0.65      | Strongly Agree        |
| The Audio from recorded lecture helps to promote my attention span.                               | 4.10             | 0.80      | Agree                 |
| Recorded lectures are easy to use.  | 4.30             | 0.30      | Strongly Agree        |
| <b>Grand Mean</b>   | <b>4.24</b>      |           | <b>Strongly Agree</b> |
| <b>Interpretation</b>   | <b>Very High</b> |           |                       |

Overall, status of level of quality of experience by using video as a supplementary tool in terms of instructional effectiveness gained the grand mean of 4.24 and was interpreted Very High as evaluated by the respondents.

In addition to the benefits of BL, some research focused on the affordance of the emerging technologies for collaborative learning (Gan et al., 2015). The wide range of information, preparation, abilities, and attitudes that lead to effective teaching and student learning is referred to as instructional effectiveness. A complicated construct, instructional effectiveness has many different facets, behaviors, talents, and traits.

**Table 9. Level of Quality of Experience by Using Video as a Supplementary Tool in terms of Skill Development**

| STATEMENT  | Mean        | SD   | Remarks        |
|--|-------------|------|----------------|
| Recorded lectures improve my acquisition of practical skills.  | 4.09        | 0.83 | Agree          |
| I preferred using recorded lectures in learning practical skills rather than synchronous online class.                       | 3.86        | 1.05 | Agree          |
| I can pause the video and follow how to properly perform the instructions that were given thus promotes skill competence.    | 4.34        | 0.72 | Strongly Agree |
| I can re watch the recorded video anytime I want, so I can recall the proper way of performing the task.                     | 4.41        | 0.69 | Strongly Agree |
| The recorded video provides animation or visual representation that helps to promote familiarization of the actual practice. | 4.31        | 0.74 | Strongly Agree |
| I am more confident to perform after watching the recorded lectures.   | 4.10        | 0.88 | Agree          |
| <b>Grand Mean</b>  | <b>4.19</b> |      | <b>Agree</b>   |
| <b>Interpretation</b>  |             |      | <b>High</b>    |

The above table indicates the level of quality of experience by using video as a supplementary tool in terms of skill development. Among the statements above, "I can re watch the recorded video anytime I want, so I can recall the proper way of performing the task." yielded the highest mean score (M=4.41, SD=0.69) and was remarked as Strongly Agree. This is followed by "I can pause the video and follow how to properly perform the instructions that were given thus promotes skill competence." with the mean score (M=4.34, SD=0.74) and were also remarked as Strongly Agree. On the other hand, the statement "I preferred using recorded lectures in learning practical skills rather than synchronous online class." received the lowest mean score of the respondents with (M=3.86, SD=1.05) and was remarked Agree.

Overall, status of level of quality of experience by using video as a supplementary tool in terms of skill development gained the grand mean of 4.19 and was interpreted High as evaluated by the respondents.

Students' emotional growth is aided by skill development and training. Student experimentation readiness is a requirement for learning new abilities.

**Table 10. Level of Quality of Experience by Using Video as a Supplementary Tool in terms of Satisfaction**

| STATEMENT  | Mean        | SD   | Remarks        |
|--|-------------|------|----------------|
| I am satisfied since I can download the recorded video lectures.                         | 4.24        | 0.75 | Strongly Agree |
| I am satisfied with the use of visual effects that promotes visualization.               | 4.17        | 0.74 | Agree          |
| I am satisfied with the use of audio that enhances my attention span.                    | 4.16        | 0.74 | Agree          |
| I am satisfied with the result of my academic performance after using recorded lectures. | 4.16        | 0.79 | Agree          |
| I will recommend using recorded lectures.  | 4.03        | 0.82 | Agree          |
| <b>Grand Mean</b>  | <b>4.15</b> |      | <b>Agree</b>   |
| <b>Interpretation</b>  |             |      | <b>High</b>    |

Overall, status of level of quality of experience by using video as a supplementary tool in terms of satisfaction gained the grand mean of 4.15 and was interpreted High as evaluated by the respondents.

As stated by ICSB (2015), Student's expectation is the best way to improve their satisfaction (Brown et al., 2014). It is possible to recognize student expectations to progress satisfaction level. Finally, the positive approach used in many online learning classes has been shown to place a high expectation on learners and has led to successful outcomes. Hence the hypothesis that expectations of the student significantly affect the satisfaction was included in this study.

### Level of Students' Laboratory Performance as to Practical Test

Table 11 revealed the level of students' performance in practical test in terms of test scores. It was shown that 176 or 100% of the respondents attained scores ranging from "25 to 30" which had a verbal interpretation of "Outstanding". The mean score, 29.06 with verbal interpretation of "Outstanding" indicates that the respondents performed beyond excellent satisfactory level in their practical test.

Minitab 14 was used in computing the data gathered and treated them statistically using Pearson's Moment of Correlation Coefficient (Pearson's R). The computed p-values were compared to the level of significance at 0.05 to determine the significant relationship between components and characteristics of the supplemental video and the quality of experience of the respondents.

| Grading Scale | Frequency    | Percentage            | Descriptors               |
|---------------|--------------|-----------------------|---------------------------|
| 25 – 30       | 176          | 100%                  | Outstanding               |
| 19 – 14       | 0            | 0                     | Very Satisfactory         |
| 13 – 18       | 0            | 0                     | Satisfactory              |
| 7 – 12        | 0            | 0                     | Fairly Satisfactory       |
| Below 6       | 0            | 0                     | Did Not Meet Expectations |
| <b>Mean</b>   | <b>29.06</b> | <b>Interpretation</b> | <b>Outstanding</b>        |

**Table 11. Level of Students' Laboratory Performance as to Practical Test in terms of Test Scores Significant Relationship between Components and Characteristics of the Supplemental Video and the Quality of Experience of the Respondents**

Table 12 reveals the relationship between the components and characteristics of the supplemental video and the quality of experience of the respondents.

It can be manifested that the supplemental video components in terms of objectives, content and assessment convey a *significant* relationship to the quality of experience of the respondents in terms of instructional effectiveness, skills development and satisfaction as indicated by the obtained r-values ranging from (0.540) to (0.702) with a *moderate to strong degree of correlation* and p-value (0.000) which was lower than the 0.05 level of significance that supports the result of the analysis.

Just the same, the supplemental video characteristics in terms of accessibility, audio, length of presentation and visual elements has a *significant* relationship to the quality of experience of the respondents in terms of instructional effectiveness, skills development and satisfaction as indicated by the obtained r-values ranging from (0.463) to (0.684) with a *moderate to strong degree of correlation* and p-value (0.000) which was lower than the 0.05 level of significance that supports the result of the analysis.

**Table 12. Significant Relationship between Components and Characteristics of the Supplemental Video and the Quality of Experience of the Respondents**

| Variables  |                             | r-value | Degree of Correlation | p-value | Analysis    |
|------------|-----------------------------|---------|-----------------------|---------|-------------|
| Objectives | Instructional Effectiveness | 0.540   | Moderate              | 0.000   | Significant |
|            | Skills Development          | 0.569   | Moderate              | 0.000   | Significant |
|            | Satisfaction                | 0.682   | Strong                | 0.000   | Significant |
| Content    | Instructional Effectiveness | 0.598   | Moderate              | 0.000   | Significant |

|                        |                             |       |          |       |             |
|------------------------|-----------------------------|-------|----------|-------|-------------|
| Assessment             | Skills Development          | 0.653 | Strong   | 0.000 | Significant |
|                        | Satisfaction                | 0.655 | Strong   | 0.000 | Significant |
|                        | Instructional Effectiveness | 0.571 | Moderate | 0.000 | Significant |
| Accessibility          | Skills Development          | 0.690 | Strong   | 0.000 | Significant |
|                        | Satisfaction                | 0.702 | Strong   | 0.000 | Significant |
|                        | Instructional Effectiveness | 0.603 | Strong   | 0.000 | Significant |
| Audio                  | Skills Development          | 0.667 | Strong   | 0.000 | Significant |
|                        | Satisfaction                | 0.684 | Strong   | 0.000 | Significant |
|                        | Instructional Effectiveness | 0.643 | Strong   | 0.000 | Significant |
| Length of Presentation | Skills Development          | 0.684 | Strong   | 0.000 | Significant |
|                        | Satisfaction                | 0.678 | Strong   | 0.000 | Significant |
|                        | Instructional Effectiveness | 0.498 | Moderate | 0.000 | Significant |
| Visual Elements        | Skills Development          | 0.482 | Moderate | 0.000 | Significant |
|                        | Satisfaction                | 0.463 | Moderate | 0.000 | Significant |
|                        | Instructional Effectiveness | 0.681 | Strong   | 0.000 | Significant |
|                        | Skills Development          | 0.613 | Strong   | 0.000 | Significant |
|                        | Satisfaction                | 0.639 | Strong   | 0.000 | Significant |
|                        | Instructional Effectiveness |       |          |       |             |

\*significant at .05 level of significance

### Significant Effect of Components and Characteristics of the Supplemental Video on Laboratory Performance of the Respondents

Minitab 14 was used in computing the data gathered and treated them statistically using Regression Analysis. The computed p-values were compared to the level of significance at 0.05 to determine the significant effect of components and characteristics of the supplemental video on laboratory performance of the respondents as to practical test.

**Table 13. Significant Effect of Components and Characteristics of the Supplemental Video on Laboratory Performance as to Practical Test**

| Variables              |                | t-value | p-value | Analysis        |
|------------------------|----------------|---------|---------|-----------------|
| Objectives             | Practical Test | -1.74   | 0.083   | Not Significant |
| Content                |                | -1.23   | 0.221   | Not Significant |
| Assessment             |                | -0.14   | 0.886   | Not Significant |
| Accessibility          | Practical Test | -1.63   | 0.106   | Not Significant |
| Audio                  |                | -1.99   | 0.048   | Significant     |
| Length of Presentation |                | -2.29   | 0.023   | Significant     |
| Visual Elements        |                | -2.65   | 0.009   | Significant     |

\*significant at .05 level of significance

Table 13 presented the effect of components and characteristics of the supplemental video on laboratory performance as to practical test.

It can be seen that the components of the supplemental video in terms of objectives ( $t=-1.74$ ,  $p=0.083$ ), content ( $t=-1.23$ ,  $p=0.221$ ), and assessment ( $t=-0.14$ ,  $p=0.886$ ) do not significant affect the laboratory performance of the students. The obtained p-values were all higher than (0.05) level of significance which supports the analysis.

On a different note, a significant analysis was revealed on the effect of supplemental video characteristics in terms of audio ( $t=-1.99$ ,  $p=0.048$ ), length of presentation ( $t=-2.29$ ,  $p=0.023$ ), and visual effects ( $t=-2.65$ ,  $p=0.000$ ) except only for accessibility ( $t=-1.63$ ,  $p=0.106$ ) on the laboratory performance

of the students. The obtained p-values which were all lower than (0.05) level of significance which supports the analysis.

This further indicates that the characteristics of supplemental videos being used to aid in teaching shows implication on students' performance.

## CONCLUSION

Drawn the results of the study, the following results are set forth;

1. The characteristics and components of the supplemental video have significant relationship to the quality of experience in teaching Technology and livelihood Education specialized in Cookery. Therefore, the null hypothesis is rejected.
2. The components and characteristics of the supplemental video regards to objectives, content, assessment, accessibility, audio, length of presentation and visual elements have partially sustained the research hypothesis, therefore the null hypothesis was partially accepted.

## RECOMMENDATIONS

Based on the conclusions formulated from the findings, the following recommendations are hereby formulated:

1. The supplementary videos used in teaching technology and livelihood education (TLE) specialized in cookery need to innovate and enhanced to bring out the best of students' performance.
2. The technology and livelihood education teachers may innovate additional instructional learning materials based on the needs and interests of the students assimilated into other courses offered in Technology and Livelihood Education.
3. Schools can implement strategic intervention plans aimed at raising student performance in cooking classes.
4. It is advised that teachers take programs on differentiated instruction and enhance their skills so they may modify their lessons and content according to the demands and learning preferences of their learners.
5. For Future researchers, they can further validate the supplementary videos in cookery to measure and assess the effectiveness of the instructional tool.

## ACKNOWLEDGEMENTS

Though only the names of the researcher appear on the cover of this study, many people have contributed to it. The following people received the researcher's heartfelt gratitude and thanks for their assistance in making this study feasible.

**God Almighty**, as provider in times of weakness and sickness. For Him all glory, honor, and praise.

**Laguna State Polytechnic University Santa Cruz Main Campus**, for providing a high-quality education, knowledgeable instructors, and a positive learning atmosphere that aided in her development into a more marketable professional;

**HON. MARIO R. BRIONES, EdD**, President of Laguna State Polytechnic University, for his ardent leadership in the University;

**ROSARIO G. CATAPANG, PhD**, Associate Dean of College of Teacher Education and research adviser, for her tireless effort, patience, motivation, immerse knowledge and utmost support in the fullness of the study.

**JULIE ROSE P. MENDOZA, EdD**, GSAR Coordinator and the researcher' technical editor, for sending out regular GSAR announcement and update reminders and advise and for sharing her expertise in the technical aspect in the study;

**BENJAMIN O. ARJONA, EdD**, her Statistician, for the valuable comments and for sharing her expertise in analyzing the data which was utmost significant in the completion of this study;

**MARIA RELLIE B. KALACAS, PhD**, her Subject Specialist, for her remarkable comments

and observations for the betterment of the study;

**LOLITA G. PEREZ, PhD**, her external panel, for her time and effort to check the manuscript of the researcher;

**ARMIE P. DE LIMA, LPT**, her External Statistician, for her boundless patience and enthusiasm in bringing out accurate and detailed results for the credibility of the study;

**BAYANI A. GUIA, MBA**, her Language Critic, for his extraordinary work in revising and verifying the manuscript to ensure its accuracy.;

**GEMMA M. SANCHEZ**, Principal in Liceo de Pila, for her whole-hearted guidance, support and approval to conduct this study in the school;

Lastly to her **FAMILY** for their endless prayers, supports, love, and sacrifices to complete this research study successfully.

Thank you so much and to God Be all the Glory!

**“The Researcher”**

## REFERENCES

- Abdulla, M. H. (2018). The Use of an Online Student Response System to Support Learning of Physiology during Lectures to Medical Students. *Education and Information Technologies*, 23(6), 2931-2946. DOI:10.1007/s10639-018-9752-0.
- Blau, I., & Barak, A. (2012). How do personality, synchronous media, and discussion topic affect participation? *Journal of Educational Technology & Society*, 15(2), 12–24.
- Catapang, R.G., & Tuiza, A.V., (2022) Insights for Teaching Career Preference among (CTP) Certificate of Teaching Proficiency Students of LSPU: Basis for Proposed CTP Handbook, *International Journal of Scientific and Management Research* 5(5) 1-13, DOI: 1037502/IJSMR.2022.5501
- Forrin, Sana, F., N. D., Sharma, M., Dubljevic, T., Ho, P., Jalil, E., & Kim, J. A. (2020). Optimizing the efficacy of learning objectives through pretests. *CBE—Life Sciences Education*, 19(3), ar43.
- ICSB (2015). Addressing undergraduate entrepreneurship student expectations: An exploratory study. *International Council for Small Business (ICSB)*. Retrieved from: <https://search.proquest.com/docview/1826918813?accountid=147490>.
- Kay, R. (2012). Exploring the use of video podcasts in education: A comprehensive review of the literature. *Computers in Human Behavior*, 28, 820—83
- Kwary DA, Fauzie S. Students’ achievement and opinions on the implementation of e-learning for phonetics and phonology lectures at Airlangga University. *Educ Pesqui*. 2018; 44.
- Ljubojevic, M., Vaskovic, V., Stankovic, S., & Vaskovic, J. (2014). Using supplementary video in multimedia instruction as a teaching tool to increase efficiency of learning and quality of experience. *International Review of Research in Open and Distributed Learning*, 15(3), 275-291.
- Marques, J.C., Quintela, J., Restivo, M.T., & Trigo, V. (2012). The use of video clips in engineering education. In *Proceedings of Interactive Collaborative Learning (ICL)*, 2012 15th International Conference, 1 – 4.
- Mat-Rabi, N., Osman, R. & Mat-Rabi, N. (2016). Graphic animation: Innovative language learning for autistic children. *World Academy of Science, Engineering and Technology, International Journal*

- of Social, Behavioral, Educational, Economic, Business and Industrial Engineering, 10(5), 1614-1621.
- Schacter DL, Szpunar KK. Enhancing attention and memory during video-recorded lectures. *Sch Teach Learn Psychol.* 2015;1:60–71.
- Steffes, E. M., & Duverger, P. (2012). Edutainment with videos and its positive effect on long-term memory. *Journal for Advancement of Marketing Education*, 20(1).
- Stiubiener, I., Silveira, R.M., Matushima, R., Bressan, G., & Ruggiero, W.V. (2012). Evaluating the effectiveness of the use of teaching materials in video format in distance learning environments. In *Frontiers in Education Conference Proceedings 2012*, 1-6.
- Soares Guedes, L., & Landoni, M. (2020, December). How are we teaching and dealing with accessibility? A survey from Switzerland. In *9th International Conference on Software Development and Technologies for Enhancing Accessibility and Fighting Info-exclusion* (pp. 141-146).
- Yang Y. (2017). *Research on effectiveness of flipped classroom based on micro video* [Conference session]. International conference on frontiers in educational technologies and management sciences (FETMS), Nanjing, China, October 7–8, 2017.