

## Using Competency-Based Video Material in Cookery and the Performance of the Grade 9 Students

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**ABSTRACT:** This study aimed to promote competency-video-based material in teaching cookery as a new method of teaching and its impact on improving students' performance in TLE 9. This descriptive correlational research aims to determine the effectiveness of the video material among the seventy-eight (78) cookery students at Col. Lauro D. Dizon Memorial Integrated High School. The self-made questionnaire was used in this study and validated by experts in the field of cookery. The responses from the respondents were generated through a survey questionnaire. The result was analyzed using mean, standard deviation, and Pearson Product-Moment Correlation Coefficient.

The study revealed that the respondents were mostly 14 to 16 years of age. There were more female respondents. Most of the respondents have fathers and mothers that were employed. Most of the respondents have fathers and mothers who are high school graduates. Most of the respondent's family monthly income ranges from Php 5,001.00- Php. 10, 000.00.

The results indicate that most of the respondents were outstanding in their performance. The majority of students have an excellent level of performance, scoring above 90 in terms of written examination and practicum. Furthermore, it is clear from this observation that the respondents obtained good results in all of the given written tests and practicum. Moreover, the test of significant relationship revealed.

There are significant relationships between the competency-based video material and students in terms of conceptual and technical skills.

**KEYWORDS:** Competency-based video material, Performance in cookery, conceptual skills, technical skills.

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### I. INTRODUCTION

The best way to increase student's proficiency and critical skill and produce more is to develop each Filipino's capacity for lifelong learning while fostering professional citizenship through instructional materials like video-based lessons.

In society, education, and specifically in the curriculum, the pandemic did not introduce any new trends; rather, it only accelerated previously established ones, which might be summed up as technological advancement. Those with the ability to work "remotely" take advantage of their privilege by taking advantage of a society that is becoming more and more digital. They themselves are changed in the process, as their own subjectivities are digitalized, thus predisposing them to a "curriculum of things" (a term coined by Laist 2016) to describe an object-oriented pedagogical approach), which is organized not around knowledge but information (Koopman 2019; Couldry and Mejias 2019). The OECD and other international bodies promoted this (old) "new normal," which led to what some perceive as "a dynamic and transformative articulation of collective expectations of the purpose, quality, and relevance of education and learning to holistic, inclusive, just, peaceful, and sustainable development, and to the well-being and fulfillment of current and future generations" (Marope 2017, p. 13). "New normal education policy" should take account of the new norm.

Competency-based video materials boost student creativity and cooperation. Access to the video can help motivate students and create a distinctive context for their learning experience. Based on a true story- the incorporation of video in the classroom, has allowed Broadmeadows students and teachers to help in broadcasting school announcements, use pre-recorded classes to overcome teacher shortages, and, influence Internet-based digital video to enhance self-directed learning (A. D. Greenberg, et al., 2012).

This study imparts a relevant idea on how to enhance comprehension through learner control and multimedia interpretations. This study had open the opportunity for instructors and students to use multimedia presentations, especially with the use of competency-based video materials to create stronger memory. Instructors have been imparted with knowledge on how to

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motivate, explain and the students' cope with the norms of video materials hence helping students to easily instill information in their minds.

The purpose of the study is first; to determine if a significant difference exists in students' perceptions of the effective use of video presentation when grouped according to academic level and sex and, second determine the level of effectiveness

### OBJECTIVES OF THE STUDY

This study investigates the competency-based video material in teaching cookery and the student's performance in TLE 9 at Col. Lauro D. Dizon Memorial Integrated High School, San Pablo City, Laguna S. Y. 2022-2023. Specifically, it seeks answers to the following questions: 1. Identify the perception of the respondents on the Competency-based video materials in Commercial Cookery as to;

### METHODOLOGY

The researchers administered a self-made questionnaire based on the criteria used by Curriculum Instructions and Development Quality Assurance (CIDQA) to evaluate instructional materials to obtain the relevant data. The instrument included learner's pocket (LEAP) components evaluation to determine the materials used in teaching technology and Livelihood Education. The questionnaire was divided into two parts. The first part dealt with the profile of the respondents, and the second part was the evaluation tool which included the competency-based video material evaluation criteria as instructional materials in the cookery. The researcher sent the questionnaire for a dry run, testing, and evaluation to faculty members, experts in professional education and technology and livelihood education, and the students who were not part of the study.

in using video presentations to students' learning process. This was derived due to the changes and updates the world has to offer on enhancing students' wisdom. Instructors and even students rely on or use educative videos to learn, compare and understand concepts.

This study provides opportunities to discuss the effect of video-based materials in cookery on the performance of students in CLDDMIHS and Using videos instead of only print materials results in a more interesting sensory experience. The topic is seen and heard by the learners, allowing them to digest it similarly to how they process everyday encounters. Furthermore, the study was purposely made to address the challenge of insufficient and overgeneralized materials which help students enhance their skills and competencies in cookery and develop their confidence.

(Process: Introduction, Development, Engagement Assimilation, Assessment, Reflection; Instruction; Assessment and grading; Feedback) 2. Assess the student's performance on commercial cookery during the 2nd quarter as to (Conceptual skills; and technical skills) 3. Distinguish the significant relationship between the perception of the students on the Competency-Based Video Material as to (Conceptual skill and technical skill).

To ensure the validity of the content of the instrument used in the study, the researcher tapped five (5) Technology and Livelihood Education teacher who teaches TLE at Col. Lauro D. Dizon MIHS. TLE Teachers were requested to validate the research instrument for improvement. All the instruments were incorporated into the final draft on the instruments. and content validation of the instrument.

The researcher wrote a letter to the Grade 9 cookery Students before carrying out the actual survey. The letter addressed to the Superintendent asked the school for permission to conduct a study. Upon acceptance of the permission letter, the researcher distributed the questionnaires during the Second Grading cycle to the respondents. The questionnaires were in printed form and had been compiled by the researcher directly and counted for analysis and interpretation.

Copies of the competency-based video material developed were used by teachers in Col. Lauro D. Dizon Memorial Integrated High School. Teachers were asked to provide their suggestions and recommendations on how to use the competency-based video material in cookery. Students' personal data were obtained with the help of class advisers. The questionnaire was given to the respondents and retrieved after answering from the time it was administered. Input data were checked and analyzed statistically.

To solve problems regarding descriptive questions, like the profile of the respondents, perception of the student's frequency, percentage, mean and standard deviation were employed. On the other hand, for the relationship between The Competency-Based Video Material in Cookery on the Performance of the Grade 9 student in conceptual and technical skills Pearson-r was utilized at a .05 level of significance.

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## RESULTS AND DISCUSSION

### PART I: PERCEPTION OF THE RESPONDENTS ON THE COMPETENCY-BASED VIDEO MATERIALS AS TO PROCESS.

**Table 1. Perception of the Respondents on the Competency-Based Video Materials as To Process In Terms Of Introduction.**

Indicators	Mean	SD	Interpretation
The video-based materials on TLE Cookery Grade 9			
1. provided complete dimensions of learning: cognitive, affective, and psychomotor.	4.50	0.79	Strongly Agree
2. directed learners what to think, what to feel, and what to do.	4.54	0.66	Strongly Agree
3. stimulated learners to think analytically, critically, and creatively.	4.42	0.55	Agree
4. sustained the interest of the learners to learn at their own pace of understanding.	4.42	0.66	Agree
5. provided directions and instructions that helped students learn better.	4.73	0.57	Strongly Agree
<b>Overall</b>	<b>4.52</b>	<b>0.06</b>	<b>Strongly Agree</b>

The data exhibits the mean perception of the respondents on the competency-based video material in terms of introduction. As sifted through, the result shows that the overall mean is 4.52, verbally interpreted as Strongly agree. It tells those respondents “Strongly agreed” that respondents are satisfied with the introduction to the competency-based video material and students guide their learning efforts properly and keep track of their success based on the learning competencies. It implies that students have a better understanding of the lessons, which aids cognitive and psychomotor learning objectives.

Notably, the claim with the highest mean indicates that the respondents ‘strongly agreed’ that giving instructions and directions to children improved their learning. (mean=4.73) Setting SMART goals ensures that they are finishing the task at hand, increasing accountability and punctuality. On the other hand, the third and fourth items, which are the identical result, have the lowest mean of the results. The respondents ‘agreed’ that this encouraged students to think critically, analytically, and creatively and maintained their interest in learning at their own speed. This indicates that the readers/students can explain, obtain, measure, and reach their learning objectives (mean=4.42).

**Table 2. Perception Of The Respondents On The Competency-Based Video Materials As To Process In Terms Of Development.**

Indicators	Mean	SD	Interpretation
The video-based materials on TLE Cookery Grade 9:			
1. explained topics clearly, logically, and concisely.	4.72	0.48	Strongly Agree
2. focused more on the main purpose of the subject.	4.64	0.60	Strongly Agree
3. provided content and concepts about cookery effectively.	4.63	0.64	Strongly Agree
4. encouraged students to use multiple resources to improve understanding.	4.60	0.72	Strongly Agree
5. provided a real-world scenario that students can relate to.	4.51	0.71	Strongly Agree
<b>Overall</b>	<b>4.62</b>	<b>0.46</b>	<b>Strongly Agree</b>

In terms of development, **table 2** displays the respondents' average perceptions of the competency-based video. The table reveals that the verbal interpretation of "strongly agree" is 4.62, which is the overall mean. It demonstrates that when evaluated using the criteria/scaling meant for competence video-based material evaluation, the respondents are pleased with the way the competency-based-video material is part of the development and the learning contents are relevant to the learning competencies.

Notably, the statement with the highest mean indicates that the respondents “strongly agreed” that the competency-based video material explained topics clearly, logically, and concisely. (mean=4.72); this shows clear, concise instructions so that viewers/students may apply the knowledge quickly. Additionally, it implies that the activities and lessons are pertinent to the advancement of the cooking students and encourage them to pursue their careers in the future. On the other hand, the fifth item, where respondents “strongly agreed” that competency video-based material provided a real-world scenario that students can relate to, had the lowest mean of the results. (mean=4.51); the information also shows that the respondents believe that learning content encourages a deeper understanding of the topic.

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**Table 3. Perception of the Respondents on the Competency-Based Video Materials as To Process In Terms Of Engagement.**

Indicators	Mean	SD	Interpretation
The video-based materials on TLE Cookery Grade 9:			
1. is enjoyable to work on.	4.55	0.71	Strongly Agree
2. show the application of skills in real-life situations	4.58	0.61	Strongly Agree
3. provide students a guide on how to perform needed skills.	4.59	0.65	Strongly Agree
4. show students what contents and concepts are important in learning cookery skills.	4.60	0.54	Strongly Agree
5. is suitable to the learning level of the students.	4.49	0.73	Strongly Agree
<b>Overall</b>	<b>4.56</b>	<b>0.48</b>	<b>Strongly Agree</b>

Table 3 unveils the perception of the respondents on the competency-based video materials in terms of engagement. As examined carefully, the respondents' overall perception is verbally interpreted as "strongly agree" with a mean score of 4.56. The final result shows that the activities are worthwhile and appropriate for the student's level of learning. It indicates that tasks are interesting to do and educational enough for learners to readily adapt and learn.

Particularly, the statement with the highest mean shows that the respondents 'strongly agreed' that show students what contents and concepts are important in learning cookery skills. (mean= 4.60); Furthermore, it shows that activities encourage relaxation and improve the quality of daily tasks for students. It may be done every day at home, helps to keep things balanced, and releases stress. The statement with the lowest mean score, on the other hand, reveals that the respondents also "strongly agreed" that it is fun to work on interests. This suggests that the activities are pleasing to the sight and enjoyable (mean=4.55).

**Table 4. Perception of the Respondents on the Competency-Based Video Materials as To Process In Terms Of Assimilation.**

Indicators	Mean	SD	Interpretation
The video-based materials on TLE Cookery Grade 9:			
1. provides ideas so that students can fully understand the process/ contents presented.	4.65	0.58	Strongly Agree
2. provide exposure and appreciation of diverse cultures and practices when it comes to cooking.	4.47	0.75	Agree
3. encourage the use of for effective teaching and learning processes to take place.	4.44	0.68	Agree
4. allow students to actively collaborate.	4.51	0.72	Strongly Agree
5. provide hands-on projects that are real-life applications.	4.51	0.66	Strongly Agree
<b>Overall</b>	<b>4.52</b>	<b>0.53</b>	<b>Strongly Agree</b>

Table 4 come out positive results of the respondents' perception of the competency-based video materials in terms of Assimilation. As examined carefully, the overall mean is 4.52, verbally translated as strongly agree. It tells that the respondents "strongly agreed" that assimilation has helpful ideas and directive guides to help them develop their limitations in the lessons.

The two statements with the highest means show that the respondents "strongly agreed" that the assessment tools had given them clear instructions on how to react to the assimilation presented for each session. (mean= 4.51); this demonstrates that the assimilation tools allow students to actively collaborate and provide hands-on projects that are real-life applications. On the other hand, the statement with the lowest mean shows that the respondents 'agreed' that assimilation tools meet the needs of the students. (mean= 4.44); It only proves that the evaluation strategy is pertinent to students' needs and demonstrates the satisfied respondents.

**Table 5. Perception of the Respondents on the Competency-Based Video Materials as To Process In Terms Of Assessment.**

Indicators	Mean	SD	Interpretation
The video-based materials on TLE Cookery Grade 9:			
1. provide assessment in line with the content	4.46	0.68	Agree
2. assess learned knowledge using easy, average, and difficult questions.	4.45	0.66	Agree
3. use strategies fitted to the level of learners.	4.51	0.77	Strongly Agree
4. used instruction geared toward the learners' level of understanding.	4.55	0.70	Strongly Agree
5. include criteria and rating scales appropriate for each learning task	4.58	0.57	Strongly Agree
<b>Overall</b>	<b>4.51</b>	<b>0.53</b>	<b>Strongly Agree</b>

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Table 5 exhibits the perception of respondent's perception of competency-based video materials in terms of Assessment. The result shows an overall mean of 4.51 is verbally interpreted as "strongly agree"; It means that the respondents think the competency-based video materials assessment is appealing and entertaining. They are not distracted by the contents, which is essential.

Notably, the statement with the highest mean shows that the respondents 'strongly agreed' that including criteria and rating, scales are appropriate for each learning task. (mean= 4.58); this implies that the video-based materials have clear illustrations and text that are used in the assessment and presentation of the educational video material. On the other hand, the lowest mean score among the result shows that the respondents 'agreed' that assessing learned knowledge using easy, average, and difficult questions. (mean= 4.45); this indicates that respondents are able to understand the video materials in terms of assessment.

**Table 6. Perception of the Respondents on the Competency-Based Video Materials as To Process In Terms Of Reflection.**

Indicators	Mean	SD	Interpretation
The video-based materials on TLE Cookery Grade 9:			
1. provide a reflection on the value of learned knowledge and skills.	4.62	0.65	Strongly Agree
2. utilize situations where students reflect on what to think, feel, and do.	4.46	0.68	Agree
3. encouraged students to think analytically, critically, and creatively.	4.60	0.65	Strongly Agree
4. motivate students to learn beyond what is taught in the subject.	4.67	0.55	Strongly Agree
5. provide inspiration to set and achieve goals in cookery.	4.62	0.63	Strongly Agree
<b>Overall</b>	<b>4.59</b>	<b>0.49</b>	<b>Strongly Agree</b>

Table 6 exhibits the perception of respondent's perception of the competency-based video in terms of; this implies that the respondents "strongly agreed" that video materials are entertaining.

Notably, it shows that the highest mean indicator is respondents 'strongly agreed' that the video materials motivate students to learn beyond what is taught in the subject. (mean= 4.67). This implies that the students found the video-based material has a context of active learning by using guiding questions, and interactive elements.

On the other hand, the statement with the lowest mean score among the indicator was the respondents 'agreed' that utilize situations that students reflect on what to think, feel, and do. (mean= 4.46); This suggests that it's crucial to remember that viewing a video can be just as passive an activity as reading is.

**Table 7. Perception of the Respondents on the Competency-Based Video Materials as To Instruction.**

Indicators	Mean	SD	Interpretation
The video-based materials on TLE Cookery Grade 9:			
1. the video material utilizes varied assessment tools to assess students' progress.	4.50	0.66	Strongly Agree
2. engaging, interesting, and understandable.	4.55	0.60	Strongly Agree
3. well-organized and formatted	4.59	0.59	Strongly Agree
4. appropriate in the needs of the learners.	4.65	0.53	Strongly Agree
5. logical and have a smooth flow of ideas.	4.58	0.63	Strongly Agree
<b>Overall</b>	<b>4.57</b>	<b>0.44</b>	<b>Strongly Agree</b>

Table 7 exhibits the perception of respondent's perception of the competency-based video in terms of; this implies that the respondents "strongly agreed" that video materials offer greater benefits for student learning.

Notably, it shows that the highest mean indicator is respondents 'strongly agree' that the video is appropriate for the needs of the learners. (mean= 4.65). These aid learning in the dimensions of movement, color, and design, enabling learning independent of time and sound, bringing outside-of-class environments into the classroom, and promoting concrete, long-term learning.

On the other hand, the statement with the lowest mean score among the indicator was the respondents "strongly agreed" that the video material utilizes varied assessment tools to assess students' progress. (mean= 4.50); This implies that the student's attention and motivation are raised by multimedia components that engage different senses, such as movies utilized in learning environments.

**Table 8. Perception of the Respondents on the Competency-Based Video Materials as to Assessment and Grading.**

Indicators	Mean	SD	Interpretation
The video-based materials on TLE Cookery Grade 9:			
1. instruction is clear and concise in every assessment	4.58	0.57	Strongly Agree
2. mindful of the school grading system	4.50	0.70	Strongly Agree
3. includes monitoring of self-academic performances	4.58	0.69	Strongly Agree
4. used fair assessment for learning	4.49	0.68	Agree
5. employed a variety of assessment tools with corresponding grading criteria.	4.56	0.64	Strongly Agree
<b>Overall</b>	<b>4.54</b>	<b>0.50</b>	<b>Strongly Agree</b>

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Table 8 exhibits the perception of respondents on the competency-based video materials in terms of Assessment and grading. The result shows an overall mean of 4.54 and is verbally interpreted as “strongly agree”; It means that the learning is simpler and more profound that are engaged in the learning environment. When compared to the information delivered in class during traditional presentations in this context, the videos used in learning environments will ensure that hearing and interaction between the video and the students stimulate their learning.

Notably, the statement with the highest mean shows that the respondents ‘strongly agreed’ with the mindfulness of the school grading system. (mean= 4.58); this implies that the video-based materials have assessment measures only that it is designed to measure their intended purpose. On the other hand, the lowest mean score among the result shows that the respondents ‘agreed’ with the use of fair assessment for learning. (mean= 4.49); this respondent indicates that he/she understands what is important in connection to a set of requirements on a certain topic.

**Table 9. Perception of the Respondents on the Competency-Based Video Materials as To Feedback.**

<b>Indicators</b>	<b>Mean</b>	<b>SD</b>	<b>Interpretation</b>
The video-based materials on TLE Cookery Grade 9:			
1. advancement of self-learning engagement was emphasized.	4.55	0.62	Strongly Agree
2. verified the progress of own learning and act accordingly based on the results of the assessment.	4.63	0.74	Strongly Agree
3. provide timely and frequent feedback tests, reports, and projects for improvement.	4.71	0.49	Strongly Agree
4. employed remedial classes based on the assessment results to enhance students’ performance	4.58	0.63	Strongly Agree
5. assessment results were discussed personally when the need arises.	4.58	0.55	Strongly Agree
<b>Overall</b>	<b>4.61</b>	<b>0.47</b>	<b>Strongly Agree</b>

Table 9 exhibits the perception of respondent’s perception of the competency-based video in terms of; this implies that the respondents “strongly agreed” that video materials encourage the student to consider the learning involved in the task rather than merely the activity of executing the task, and it offers specific suggestions on how to improve learning outcomes.

Notably, it shows that the highest mean indicator is respondents “strongly agreed” that the video material provides timely and frequent feedback tests, reports, and projects for improvement. (mean= 4.71). The students comprehend it, which inspires them to desire to learn more successfully.

On the other hand, the statement with the lowest mean score among the indicator was the respondents also “strongly agreed” that the video material advancement of self-learning engagement was emphasized. (mean= 4.55); with the overall mean of 4.61 which states as “strongly agree”. This implies that feedback in students advances to higher understanding and achievement, become more self-directed, and have confidence in their capacity to finish tasks and achieve objectives.

## PART II: STUDENTS’ PERFORMANCE ON COMMERCIAL COOKERY DURING 2ND QUARTER AS TO SKILLS.

**Table 10. Students’ Performance On Commercial Cookery During 2<sup>nd</sup> Quarter As To Conceptual Skills.**

<b>KNOWLEDGE</b>	<b>KNOWLEDGE</b>		<b>SKILLS</b>		<b>ATTITUDE</b>	
	<b>Legend</b>	<b>Freq</b>	<b>%</b>	<b>Freq.</b>	<b>%</b>	<b>Freq.</b>
<b>0-4</b>					7	8.97
<b>5-9</b>	6	7.69	12	15.38	24	30.77
<b>10-14</b>	72	92.31	66	84.62	47	60.26
<b>TOTAL</b>	<b>78</b>	<b>100.00</b>	<b>78</b>	<b>100.00</b>	<b>78</b>	<b>100.00</b>

Table 10 shows that the majority of respondents performed well on the competency-based video material pre-test. Additionally, it is evident from this observation that all the provided pre-tests produced positive results, and respondents are succeeding in Cookery because they comprehend the competency-based video material.

**Table 11. Students’ Performance on Commercial Cookery during the 2<sup>nd</sup> Quarter as to Skills in Terms of Technical Skills.**

<b>SAFETY AND GOOD GROOMING</b>	<b>SAFETY AND GOOD GROOMING</b>		<b>FOOD PRODUCTION</b>		<b>FOOD PRESENTATION</b>	
	<b>Legend</b>	<b>Freq.</b>	<b>%</b>	<b>Freq.</b>	<b>%</b>	<b>Freq.</b>
<b>0-5</b>			78			
<b>6-10</b>						
<b>11-15</b>	78	100.00		100.00	78	100.00
<b>TOTAL</b>	<b>78</b>	<b>100.00</b>	<b>78</b>	<b>100.00</b>	<b>78</b>	<b>100.00</b>

table 11 demonstrates that all respondents successfully completed the performance task for the competency-based video material.

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This observation also shows that all the indicators had favourable outcomes and that respondents are excellent at Cookery because they are able to understand the competency-based video content.

**Table 12. Correlation Between Competency-Based Video Material in the Cookery and Conceptual and Technical Skills.**

	CONCEPTUAL SKILLS			TECHNICAL SKILLS		
	K	S	A	Safety and Good Grooming	Food Production	Food Presentation
<b>PROCESS</b>						
<i>Introduction</i>	-0.114	-0.057	-0.035	0.038	-0.019	.323**
<i>Development</i>	0.000	-0.107	-0.012	-0.081	-0.136	0.200
<i>Engagement</i>	0.027	-0.107	-0.010	-0.057	-0.074	.274*
<i>Assimilation</i>	0.035	-0.062	0.090	-0.107	-0.067	.325**
<i>Assessment</i>	-0.005	-0.023	0.054	0.001	-0.140	.259*
<i>Reflection</i>	-0.064	-0.038	0.072	-0.046	0.046	.291**
<b>INSTRUCTION</b>	0.031	-0.078	0.061	0.019	-0.085	.304**
<b>ASSESSMENT AND GRADING</b>	-0.038	-0.023	0.113	-0.141	0.030	.299**
<b>FEEDBACK</b>	0.030	-0.032	0.140	-0.083	-0.116	.264*

Table 12 illustrates the Correlation between competency-based video material in TLE cookery and conceptual and technical skills. The obtained r values reveal a positive relationship between the video-based material in cookery as to process in terms of introduction and food presentation ( $r=.323^{**}$ ) which were found significant at 0.01 level. This means that the process in terms of introduction was fully understood by the respondents. This implies that the competency-based video material must be a great help for the students to understand some of the lessons in cookery as it increases confidence and the sense that the instruction is worthwhile.

The obtained r values show a positive relationship between the video-based material in cookery as to process in terms of engagement and food presentation ( $r=.274^{*}$ ) which were found significant at 0.05 and 0.01 levels respectively.

As Mayer and Moreno 2003 cited, The Cognitive Theory of Multimedia Learning builds on the Cognitive Load Theory, noting that working memory has two channels for information acquisition and processing: a visual/pictorial channel and an auditory/verbal processing channel (Mayer and Moreno, 2003).

It implies that the competency-based video material should have a clear goal, be meaningful, and be useful so that students can transfer their knowledge from one environment or purpose to another.

Moreover, the obtained r values are significantly related between the video-based material in cookery as to process in terms of assimilation and food presentation ( $r=.325^{**}$ ) which were found significant at 0.01 level respectively. The video-based material was well-adopted by the students, who also obtain a deeper knowledge of the video material. In essence, when they come across anything new, they relate it to what they already know to absorb and make sense of it.

“The relative strengths and weaknesses among and between this intelligence dictate the ways in which individuals take in information, perceive the world, and learn” (Marshall, 2002, p. 8). This represents a great departure from the traditional view of intelligence, which recognizes only verbal and computational ability (Brualdi, 1996).

For assessment, it may be gleaned as one of the elements of the process, there is a significant relationship between the competency-based video materials to conceptual skills and food presentation ( $r=.259^{*}$ ) which were found significant at 0.05 and 0.01 level respectively. Assessment reveals that students learned from the video-based content and received direction; they also made use of information that connected what they had learned to what was to be taught next.

Gardner’s theory suggests that the manner in which subject matter is conveyed will influence that individual’s ability to learn and that teachers need to take all of this intelligence into account when planning instruction (Brualdi, 1996). While traditional textbooks often take a primarily linguistic approach to learning, video’s multiple modes can take a variety of approaches, such as aesthetic, logical, or rational, in addition to linguistic, thus addressing the needs of a broader range of learners: “These ‘multiple entry points’ into the content are especially valuable in a formal educational setting, as they offer greater accommodation to the multiple intelligences of a diverse group of students” (CPB, 2014, p. 7).

The obtained r values show a positive relationship between the video-based material in cookery as to process in terms of reflection and food presentation ( $r=.291^{**}$ ) which were found significant at 0.05 and 0.01 levels respectively. This implies students generalize the major concepts, guiding principles, and abstract notions gained from experience. It broadens students' perspectives and comprehension, aids in the development of conscious awareness, and uses prompts and feedback that direct students' learning.

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Ramey (2013) cited the different advantages of the use of technology that supports virtual or online Learning. Unlike physical classrooms, online learning is flexible and students from different geographical locations can attend the same class with no need of travelling from those locations. In this case, students can easily ask their remote-based educator questions using virtual communication tools.

Data value presents the correlation between the video-based material in cookery as to instruction and food presentation ( $r=.304^{**}$ ) which were found significant at 0.01 level respectively. It reveals that the students felt that they learn best through the video-based material produced.

An instructional video is designed to teach a particular subject. However, not all videos that explain a subject are produced as instructional videos, for example, a recording of a lecture or a conference. Lecture-based or 'substitutional' videos are recordings of an entire lecture that can be reviewed instead of or after a face-to-face meeting (Kay, 2012).

The obtained  $r$  values show a conclusive relationship between the video-based material in cookery as assessment and grading and food presentation ( $r=.299^{**}$ ) which were found significant at 0.01 level respectively. The most important thing to remember is that, similar to reading, viewing a video can be a passive activity. To get the most out of our educational videos, we must assist students in digesting information and doing their own evaluations, which will result in the learning we hope to see.

MacHardy and Pardos (2015) have developed a model relating educational video characteristics to students' performance on subsequent assessments. One observation from their analysis of Khan Academy videos was that videos that offered the greatest benefits to students were highly relevant to associated exercises.

The obtained  $r$  values show a concrete relationship between the video-based material in cookery as feedback and food presentation ( $r=.264^*$ ) which were found significant at 0.05 and 0.01 levels respectively. It demonstrates that it achieves efficient feedback and evaluates student skill development and comprehension so that the further stages in achieving the learning objectives or goals can be planned.

Feedback is a compelling influence on learner achievement. When teachers seek or at least are open to what learners know, what they understand, where they make errors, and when they have misconceptions when they are not engaged- then teaching and learning can be synchronized and powerful. Feedback to teachers makes learning visible Hattie, J. (2009). Visible learning, Oxford, UK: Routledge, p173.

As for the development, there is no significant relationship between competency-based video material in cookery and food presentation. It can be noted that students' pre-test scores do not significantly correlate to the student's perception of the competency-based material as to development. Even when the teacher has explicitly demonstrated procedures in incorporating differentiated instruction such as providing media of instruction, and multiple sources of information, this does not correlate to the results of pre-test scores of the students in terms of development.

Overall, the results of the competency-based video material were significantly related only to food preparation components. The researcher believes that watching video better helped the learners understand the lessons well. They seem to understand better when lessons are presented in visual ways. Therefore, visual learners do well with pictures, diagrams, and videos. It can demonstrate a technique/procedure in a way a text simply can't. Also, learners review the video as many times reading allowing them to progress at their own pace.

According to (Mendoza, et al., 2015) video-based materials boost student creativity and cooperation. Using instructional videos in the classroom helps to motivate the students to have a distinctive learning experience. Several studies show that the development of technology gives an impact on the learning environment. Many learning tools and education facilities contribute to the improvement of the learning process, both at school and in daily life, and, offers many ranges of facility in learning (Asejo, 2019)

### CONCLUSIONS

Based on the preceding findings, the following conclusions were drawn:

1. The respondents' perception of competency-based video material and the conceptual skills of the respondents were not significantly related; thus the null hypothesis is sustained. On the other hand, the technical skills as to food presentation indicate significant relationship to competency-based video material except for development; thus, the null hypothesis is partially sustained.

### RECOMMENDATIONS

Based on the conclusions drawn from the study, the following are now suggested:

1. Since the respondents' perception of competency-based video material in terms of conceptual is not significantly related to written examination, to capture a student's interest, the instructor and school administrator may conduct a designed and engaging evaluation or assessment. It is suggested that the school consider creating a comparable pattern with various exam sets. It is highly advised that teachers attend a session on the value of flexible evaluation methods and strategies.

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2. It is recommended that school administrators conduct training and seminars to keep up with the latest educational trends and be effective key factors in the teaching-learning process. Schools may have more laboratories and facilities that can be used in practical learning because students have already shown a high level of success in Technology and Livelihood Education in cookery.

3. The competency-video-based material in cookery may be used in future research employing additional associated variables to further the conclusions of the current study.

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