

## Blended Distance Learning Approach in the New Normal and the Core Competencies in Cookery Among TVL Students

Ma. Ana O. Hinalinan<sup>1</sup>, Edna O. Briones, Ed. D.<sup>2</sup>

<https://orcid.org/0000-0002-8870-2255><sup>1</sup>

maanahinalinan@gmail.com<sup>1</sup>, edna.briones@lspu.edu.ph<sup>2</sup>

Calauag National High School, Department of Education, Philippines<sup>1</sup>

Laguna State Polytechnic University San Pablo City Campus, Philippines<sup>2</sup>

DOI: <https://doi.org/10.54476/apjaet/51064>

### Abstract

*This study aimed to determine the perceptions of the Grade 11-TVL Cookery students in blended distance learning through personalized and competency-based learning approaches, and the challenges of this modality. More so, it determined whether these perceptions had significant relationships to the development of hard and soft skills, and cognitive skills in Cookery. The descriptive – correlational method of research was utilized using survey questionnaire, rubrics, and summative test. The statistical tools used were mean, standard deviation, frequency, and percentage. Pearson r was used to determine the significant relationships among the given variables. Results disclosed that there were moderate to strong positive and significant relationship between the variables except to the correlation between personalized learning and cognitive skills. Parallel to this, there were also moderate strong positive and significant relationship between the availability and use of educational technology and the skills of the students. However, the perception on the challenges in terms of instructional materials is significantly related to communication as a measure of soft skills, while the social support is significantly related to the level of hard and soft skills, but not to cognitive skills.*

*Keywords: personalized, competency-based, cookery, hard and soft skills, Philippines*

### Introduction

The COVID-19 pandemic started in March 2020 and enabled the Department of Education to shift the teaching modality from traditional face-to-face teaching to a blended distance learning approach. The Technical Vocational Livelihood Education focuses on providing short courses such as Cookery to the Senior High School students where they are expected to have the mastery of the principles and skills that will lead them to have the National Certifications from the Technical Education and Skills Development Authority. Under the TESDA Training Regulations for Cookery NC II, a person who has achieved this qualification is competent to be employed in any of the following positions as Cook or Assistant Cook. It means that the person has already mastered the core competencies which are essential to carry out his job. These core competencies are also known as the hard skills in Cookery. According to Novitasari (2021), hard skills are the explicit behaviors and skills which enable a person to produce something visible and direct. However, the present food industry does not only require hard skills among its workers. Soft skills often indicate the ability to collaborate with others and grow within an organization. These build relationships and solve problems to get the most out of a person's hard skills.

In this study, the blended distance learning approach combined the use of personalized learning and competency-based learning. The personalized learning provides each learner with learning activities and tasks tailored to his learning needs or interests. The competency-based learning gives equal opportunity to all types of learners to learn at their own pace.

## Objectives of the Study

This study aimed to (1) determine the perceptions of the respondents on the blended distance learning approach; (2) determine the challenges of the learning modality; and (3) identify the relationships of the blended approach and the challenges to the development of the hard skills, soft skills, and cognitive skills of the TVL Cookery learners.

## Methodology

This study made use of the descriptive–correlational research design wherein, data are gathered using a survey questionnaire, performance rubrics, and summative tests. The descriptive part of the questionnaire is presented using a 5-point Likert scale. The participants in this study are composed of 50 TVL-Home Economics students in Cookery of Calauag National High School. All of them were considered respondents of the study. The researcher designed the research instruments and had been checked and validated by experts. Permissions for the conduct of the study were sought from the concerned authority. Orientation was conducted with the respondents regarding with the purpose of the study. Then, Messenger group and Google Classroom were used as the main platform in communication. The survey questionnaire was explained and administered to the respondents personally under the direct supervision of the researcher. After the collection of data from the respondents, these were prepared for statistical treatment. The frequency count and percentage were used to identify the age range and the sex of the participants. For the perceptions of the respondents on the blended distance learning and its challenges, as well as their soft skills in Cookery, the mean analysis was used. While in determining the hard skills and cognitive skills of the respondents, the frequency count and the percentage were used. For the significant relationships between blended distance learning and the skills of the respondents, and the perceived challenges in blended learning and their skills, Pearson correlation was used.

## Results and Discussion

### 1. Profile of the Respondents in Terms of Age and Sex

**Table 1**  
*Profile of the Respondents*

Age	Frequency	%	Sex	Frequency	%
15-17	35	70	Male	12	24
18 and above	15	30	Female	38	76
<b>Total</b>	50	100	<b>Total</b>	50	100

Majority of the respondents belong to 15-17 years old with a frequency of 35 equivalent to 70%. While the minority of the respondents is 18 years old and above with a frequency of 15 equivalent to

30%. In terms of sex, the majority of the respondents is female with a frequency of 38 equivalent to 76%. While a minority of them is male with a frequency of 12 which is 24% of the total respondents.

## 2. Perceptions of the Respondents on the Blended Distance Learning Approach

**Table 2**  
*Perceptions on the Personalized Learning Approach*

Indicator	Mean	SD	VI
1. I find synchronous discussions helpful in my understanding of the lessons.	3.96	0.78	A
2. There is an open line of communication with the teacher regarding with my difficulties.	4.26	0.75	A
3. Learning tasks are modified based on my own capabilities and circumstances.	3.96	0.73	A
4. The teacher responds immediately to my queries about the tasks or activities.	4.24	0.74	A
5. The teacher gives instructions based on the level of my understanding.	4.20	0.73	A
<b>Overall</b>	<b>4.12</b>	<b>0.53</b>	<b>A</b>

Table 2 reflects an overall mean of 4.12 which the respondents “agree”. Indicator 2 has the highest mean of 4.26 which is interpreted as “agree”. An open line of communication is essential when face-to-face classes are not allowed. Hence, teacher ensured that questions raised by students online or during synchronous discussions were answered promptly.

Indicator 1 garnered the lowest mean of 3.96 which is agreed by the respondents. In carrying out synchronous learning, the researcher found that due to internet connection problems, the number of students who participated was limited, as can be seen from Indicator 2 in Table 2. Similarly, Indicator 3 got the same and the lowest mean of 3.96. It is very important to identify students who are experiencing difficulties so that appropriate support can be provided through personalized instruction and learning materials that would suit the abilities of the learners.

**Table 3**  
*Perceptions on the Competency-based Learning Approach*

Indicator	Mean	SD	VI
1. It allows me to work at my own pace and time.	3.76	0.62	A
2. The number of learning tasks is based on my learning abilities.	3.80	0.64	A
3. It allows me to gain mastery of competency before I can move on to the next competency.	3.80	0.76	A
4. It provides me with the varied types of learning resources in Cookery.	4.24	0.66	A
5. It helps me in my understanding of the concepts and developing both my hard and soft skills in Cookery.	3.74	0.78	A
<b>Overall</b>	<b>3.87</b>	<b>0.45</b>	<b>A</b>

The overall mean of 3.87 shows that the respondents agreed with the given statements. Indicator 4 has the highest mean of 4.24 which the majority of the respondents agreed. Whereas Indicator 5 has the lowest mean of 3.74 which is agreed upon by the respondents.

As stated by Alemnge (2020), in a competency-based learning environment, learning responsibility is entrusted to students, who must build their own knowledge with the resources provided by the teacher. Learning resources were available in the form of printed information sheets, self-checks, task sheets and job sheets, which are distributed to those who have difficulty accessing or downloading them online. Different types of learning materials encourage students to access materials anytime, which is important in a competency-based learning.

**Table 4**  
*Perceptions on the Availability of Gadget and Internet*

Indicator	Mean	SD	VI
1. I have a desktop/laptop/tablet/cell phone that I can use any time in my study.	3.54	0.81	A
2. I always have an access to stable internet connection.	3.18	0.87	MA
3. My gadget is capable of accessing google classroom, google meet, zoom meet, and other similar apps used in the subject.	3.26	0.90	MA
4. My gadget has a capacity to download video lessons and large files.	3.02	0.91	MA
5. My gadget can be used in making required videos and photos of my cooking activities.	3.86	0.73	A
<b>Overall</b>	<b>3.39</b>	<b>0.73</b>	<b>MA</b>

It shows an overall mean of 3.39 which is verbally interpreted as “moderately agree”. Indicator 5 has the highest mean of 3.86 which the respondents agreed. While indicator 4 has the lowest mean of 3.02 which respondents moderately agreed. It infers that students have gadgets used during their study, but were not sophisticated enough to download files and videos due to limited storage capacity.

**Table 5**  
*Perceptions on the Instructional Materials*

Indicator	Mean	SD	VI
1. Information sheets are provided regularly in hard copy or soft copy.	4.04	0.86	A
2. Supplemental reading material such as Cookery Manual is provided.	4.20	0.78	A
3. Video lessons are clear, simple, and easy to follow/understand.	4.22	0.71	A
4. Information sheets contain visual ideas like pictures and illustrations, and therefore, easy to understand.	4.14	0.70	A
5. There are digital copies of other reading materials that can be accessed.	4.26	0.72	A
<b>Overall</b>	<b>4.17</b>	<b>0.60</b>	<b>A</b>

Table 5 mirrors the overall mean of 4.17 which the respondents agreed. Indicator 5 has the highest mean of 4.26 while Indicator 1 scored the lowest mean of 4.04. Both indicators are interpreted as “agree” by the respondents.

Learning materials include printed and digital information sheets, manuals, videos, presentations, and step-by-step instructions that are sent via group messenger and posted in google classroom. These are made available to all learners, taking into account that everyone has different learning styles and needs. This allows students to study anytime, anywhere because they have easy access to these materials.

**Table 6**  
*Perceptions on the Social Support*

Indicator	Mean	SD	VI
1. My parent/guardian provides me with the things, such as computer/cell phone and internet, needed in my study.	3.64	0.75	A
2. My parent/guardian provides me with the materials/ingredients in cooking.	3.98	0.62	A
3. My teacher gives the needed assistance whenever I find difficulties with the lesson or learning task.	4.00	0.61	A
4. I have friends/classmates who help me whenever I find difficulties with the lesson or learning task.	3.42	0.81	MA
5. I have a family member who assist me in doing my modular activities.	3.62	0.67	A
<b>Overall</b>	<b>3.73</b>	<b>0.50</b>	<b>A</b>

Table 6 displays that the respondents agreed to the social support they received had an overall mean of 3.73. They also agreed to the provided teacher support had the highest mean of 4.00. Whereas, they moderately agreed to the support coming from their peers or classmates having the lowest mean of 3.42. The teacher exhibited a friendly and supportive attitude so that students would not hesitate to ask for help. This motivated students to seek help and approach the teacher when they face difficulties in the subject. While peer support is a common problem with blended distance learning without face-to-face interaction because lack of physical interaction limits students' opportunities to develop peer spirit or camaraderie by which assistance and help from their friends become really possible and immediate.

**Table 7**  
*Perceptions on the Use of Educational Technology*

Indicator	Mean	SD	VI
1. I can easily communicate with teachers and classmates using text messages and phone calls, Facebook messenger, zoom, and other similar apps.	3.70	0.68	A
2. I can easily access and use Google classrooms for asynchronous learning activities.	3.26	0.88	MA
3. I can easily send soft copies of the required outputs to my subject teacher through Facebook messenger, google classroom, or email.	3.30	0.91	MA
4. I can easily do online research of cooking recipes and in answering home works.	3.24	0.96	MA
5. I can easily prepare home works using computer operations such as Word, PowerPoint presentations, video editor, and other similar computer software.	2.62	0.92	MA
<b>Overall</b>	<b>3.22</b>	<b>0.66</b>	<b>MA</b>

The overall mean for the use of educational technology is 3.22 which is moderately agreed by the respondents. Indicator 1 got the highest mean at 3.70 was agreed upon by the respondents. Messenger is the most widely used online platform for communication between teachers and students because it is free.

On the other hand, Indicator 5 obtained the lowest mean of 2.62, meaning that respondents moderately agreed with the use of computer operations such as Word, presentations, and similar applications. Learning tasks in the subject do not require much use of educational technology other than recording and editing videos of cooking activities. However, asynchronous learning was provided which encouraged students to explore on their own in accessing learning materials.

### 3. Relationships of the blended approach and the challenges on the development of the hard skills, soft skills, and cognitive skills of the TVL Cookery learners

**Table 8**  
*Students' Level of Hard Skills in Cookery*

Score	Frequency	Percent	Level
100	-	-	Very good
90 to 99	17	34	Good
80 to 89	33	66	Average
70 to 79	-	-	Fair
below 70	-	-	Poor
<b>Total</b>	<b>50</b>	<b>100</b>	

Majority of the students (33) comprised 66% got scores of 80 to 89, while the minority of them (17) comprised of 34% got scores of 90 to 99. There were no students whose performance fall into 100 or 79 and below scores.

Cooking activities of students were carried out at home. They recorded videos of their cooking tasks and sent to the teacher. There were cases that the specific criteria were not observed by the teacher. In a few cases, the video quality was also affected due to the low quality of gadget being used. For these reasons, teacher gave follow up questions about the performance criteria that must be met. Feedback was also given individually to improve their skills.

**Table 9**  
*Perceptions of Students' Soft Skills as to Creativity*

Indicator	Mean	SD	VI
1. I am innovative in making my own recipes.	3.42	0.57	MO
2. I decorate or plate food to make it more appealing or attractive.	3.60	0.78	O
3. I organize kitchen tools and materials to make them easily accessible.	3.34	0.85	MO
4. I make tasteful and delightful recipes.	3.48	0.79	MO
5. I make a creative portfolio showing my works and activities in Cookery.	2.78	1.11	MO
<b>Overall</b>	<b>3.32</b>	<b>0.67</b>	<b>MO</b>

Table 9 presents the perceived soft skill of the respondents. The overall mean of 3.32 indicates that the respondents moderately observed the given indicators. Indicator 2 got the highest mean of 3.60 and is observed by the respondents. Whereas, indicator 5 obtained a mean of 2.78 which the respondents moderately observed. Creativity is considered one of the important soft skills in the food industry from food preparation to food presentation to customers.

**Table 10**  
*Perceptions on Students' Soft Skills as to Leadership*

Indicator	Mean	SD	VI
1. I take responsibility in doing my performance tasks in cooking.	3.60	0.86	O
2. I motivate and inspire myself as well as my classmates to perform the tasks in the subject.	3.14	0.97	MO
3. I have the initiative to ask for help whenever I need it.	3.42	0.84	MO
4. I plan my activities ahead of time.	3.14	0.95	MO
5. I can make my own decision to solve problems regarding my cooking task.	3.14	0.78	MO
<b>Overall</b>	<b>3.29</b>	<b>0.72</b>	<b>MO</b>

It illustrates that the overall mean of 3.29 indicates that the respondents moderately observed the given indicators. Indicator 1 got the highest mean score of 3.60 which is observed by the respondents. It implies that the respondents clearly understood that leadership begins in oneself as they perform their individual learning tasks. The competency-based learning motivates students to learn at their own pace and time. And therefore, students must be able to develop self-responsibility and initiative in order to finish the tasks assigned by the teacher. The teacher serves as the facilitator of learning and gives the necessary guidance and support in achieving the work to be done.

While Indicators 2, 4, and 5 garnered the lowest and the same mean scores of 3.14 which state that the respondents motivated and inspired others in performing the tasks; planned activities ahead of time; and made own decisions to solve problems. All these indicators were moderately observed by the respondents.

**Table 11**  
*Perceptions on Students' Soft Skills as to Communication*

Indicator	Mean	SD	VI
1. I listen and follow instructions given by the teacher.	3.98	0.68	O
2. I always keep updated with the announcements and discussions in group chat given by the teacher.	3.94	0.74	O
3. I listen and watch video lessons provided by the teacher.	4.06	0.77	O
4. I ask for assistance from my teacher, classmates, or family members whenever I have difficulties in the lessons or tasks.	3.68	0.71	O
5. I choose the right words in communicating with my teacher, classmates, and family members.	4.30	0.61	O
<b>Overall</b>	<b>3.99</b>	<b>0.56</b>	<b>O</b>

Communication has an overall mean of 3.99 and is observed by the respondents. Indicator 5 has the highest mean of 4.30 which the respondents observed. Indicator 4 obtained the lowest mean of 3.68 which the respondents also observed.

Communication is probably one of the most important soft skills. Without the ability to communicate, it will be difficult to learn concepts, especially in a blended learning environment. Choosing the right words when communicating with other people turned out to be the highest indicator, meaning that students understand the concept of choosing the right words as an expression of respect in a group. This is important in a team, for example in the food industry, where work must be fast and precise to meet the needs of different customers within the expected time. Stressful situations in the workplace can lead to misunderstandings among workers without careful use of the right words.

#### 4. Students’ Level of Cognitive Skills in Cookery

**Table 12**  
*Students’ Level of Cognitive Skills in Cookery*

Transmuted Score	Frequency	Percent	Level
100	-	-	Very good
90 – 99	19	38	Good
80 – 89	30	60	Average
70 – 79	1	2	Fair
Below 70	-	-	Poor
<b>Total</b>	<b>50</b>	<b>100</b>	

The table presents the cognitive skill of the respondents in Cookery and reflects that the highest frequency (30) comprised 60% of the respondents got scores ranging from 80-89. It indicates an average level of cognitive skill. While the lowest frequency of 1 or 2% of the respondents got a score ranging from 70-79 indicating a fair level of cognitive skill.

In this study, students were asked to take the test directly after they felt they had mastered the material and were ready to take the test. A batch of summative tests is given for the three competencies covered in this study before students can advance to the next competency. Summative test is a type of final assessment given to students to assess how well they have learned the concepts. This test must be passed by students in order to advance to the next competency. Therefore, students have the opportunity to repeat the exam if they fail. Synchronous discussion helps students to understand the subject matter clearly. Tutorial activity was also given to students who have difficulty answering tests.

#### 5. Relationships between the Perceived Blended Distance Learning Approaches and the Development of Hard Skills, Soft Skills, and Cognitive Skills of the Respondents in Cookery

**Table 13**  
*Relationships between the Perceived Blended Distance Learning Approaches and the Development of Hard Skills, Soft Skills, and Cognitive Skills of the Respondents in Cookery*

Variables	Hard skills	Soft skills			Cognitive skills
		Creativity	Leadership	Communication	
Personalized learning	.366**	.397**	.433**	.515**	-0.086
Competency-based learning	.429**	.555**	.481**	.342*	.504**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

At the 95% confidence level, there is a moderate to strong positive and significant relationships between the variables except to the correlation between the perceived personalized learning and cognitive skills.

The results of this study are in line with the findings of Hadiyanto et al. (2021) who concluded that 21<sup>st</sup>-century skills associated with some identified hard and soft skills acquired through conventional and blended learning were higher than conventional approaches. The results also showed that students with



blended learning practices, particularly those related to soft and hard skills, also outperform traditional learning.

However, this study also found that the two variables, personalized learning, and cognitive skill, were not significantly related. While there was no related study that would support this finding, the researcher came up with the following observations that would partly explain this result. First, in the conduct of the personalized learning approach, the teacher has the tendency to focus and interact with a selected group of students who are lagging behind in the performance of learning activities. Therefore, most students who complete learning tasks with minimal supervision received little personalized or individualized instruction. Second, only a limited number of students participated in synchronous discussions, which is a great opportunity for them to learn the content of the lesson and thereby increase their knowledge of the subject. Synchronous discussion is part of the teacher's approach to personalized learning which can be an effective way to make concepts clearer. However, there are several factors that limit students' participation in this activity, such as lack of internet and limited storage capacity of their devices, leading to loss of connection during synchronous online discussions.

## 6. Relationships between the Perceived Challenges of the Blended Distance Learning Approach and the Development of Hard Skills, Soft Skills, and Cognitive Skills of the Respondents in Cookery

**Table 14**

*Relationships between the Perceived Challenges of the Blended Distance Learning Approach and the Development of Hard Skills, Soft Skills, and Cognitive Skills of the Respondents in Cookery*

Variables	Hard skills	Soft skills			Cognitive skills
		Creativity	Leadership	Communication	
Availability of gadget and internet	.383**	.506**	.465**	.410**	.390**
Instructional materials	0.194	0.138	0.184	.288*	-0.074
Social support	.369**	.422**	.408**	.415**	0.242
Use of educational technology	.371**	.548**	.558**	.425**	.368**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

At 95% confidence level, there were moderate to strong positive and significant relationships between the availability and use of educational technology and the skills of the students. However, the perception on the challenges in terms of instructional materials is significantly related to communication as measure of soft skills, but not to the other measures of soft skills, hard skills, and cognitive skills. While social support is significantly related to the level of hard and soft skills but not to cognitive skills.

The findings in terms of the availability of gadget and internet and the use of educational technology were conclusive to the result of the study of Menorca, et. al. (2017), which found that educational gadgets have a moderately positive impact in the learning of the students. The study also indicates that the use of technology allowed the students to search information and explore features of educational applications, internet, and student-friendly websites. Another similar finding was attributed to the study of Harris et. al. (2016), which concluded that technology positively affect the student academic achievement.

In terms of instructional materials, however, there are some factors which the researcher has personally observed which might be contributed to these results. First, the content of the instructional materials used contain too much information which may cause boredom on the part of the students. In most cases, students find too long content as tiresome to be read and understood. Sometimes, they rely on the illustrations and pictures used in understanding of the content. Second, although there were illustrations and pictures being included in the reading materials, but its print quality is not outstanding. Thus, students cannot easily comprehend what the illustration is all about. This finding is in contrast with the result of the study of Ruz & Briones (2021), which found students who participated in the use of digital modules, platforms and materials showed much greater improvement in their cooking lessons.

On the other hand, social support was found to be significantly related to the development of hard skills and soft skills of the respondents, but not to the cognitive skill. In the study conducted by Kintu, et al (2017), it concluded that social supports are significant predictors for students' learning. However, this study did not identify significant relationships to learning. The findings from the study of Kintu and Zhu (2016) indicated that family support is a significant factor in achieving positive learning outcomes. Magnaye (2020) reveals that social support is helpful in acquiring the various skills needed to succeed in college. While this finding is in contrast with the findings of the study of Manguiat & Cuenca (2021), where the majority of respondents felt that social support was very visible.

In terms of its relationship with cognitive skills, social support should not cause a misconception in terms of the roles of the parents, classmates, and teachers in providing support. Cognitive skill is primarily based on the mental capacity of the individual learner to comprehend the content of the lesson. While teacher support, as part of social support, is very important to maximize the learning of the students.

## **Conclusions**

Since it was found out that there were moderate to strong positive and significant relationships between the blended distance learning and the skills of the students, thus, the stated null hypothesis that the blended distance learning approaches are not significantly related to the development of hard skills, soft skills, and cognitive skills in Cookery is rejected, except the correlation between the variables personalized learning and cognitive skills, which are found to be not significantly related.

Additionally, there were moderate strong positive and significant relationships between the availability and use of educational technology and the skills of the students. Whereas, the perceived challenges in terms of instructional materials are significantly related to communication as measure of soft skills, and the social support is significantly related to the level of hard and soft skills but not to cognitive skills. Therefore, the null hypothesis is not fully rejected nor sustained.

## **Recommendations**

Based on the conclusions above, the researcher highly recommends the following:

1. TVL-HE students may be prioritized as recipients of computer tablets of the school as an aid in learning and upskilling.
2. The school may consider providing sufficient budget for printing good quality instructional materials.
3. The teacher may consider modifying the content of the instructional materials to make it more suited to the ability and interest of the learners.

4. Additional research on the use of instructional materials may be conducted to improve students' skills in technical-vocational subject.
5. The teacher may consider attending further training with regard to giving personalized learning approach to improve instructions.

## References

- Alemnge, F. (2020). Perceptions of competency-based teaching and learning by teachers and students of secondary schools in Cameroon: Evidence from implementation of the history syllabus in form five of the bilingual grammar school, Buea, South West Region, 10.9734/ajess/2020/v13i330331, *Asian Journal of Education and Social Studies*.
- Hadiyanto, H., Failasofah, F., Armiwati, A., Abrar, M., & Thabran, Y. (2021). Students' practices of 21st century skills between conventional learning and blended learning, *Journal of University Teaching & Learning Practice*, 18(3).
- Harris, J. L., Al-Bataineh, M. T., & Al-Bataineh, A. (2016). One to one technology and its effect on student academic achievement and motivation. <https://eric.ed.gov/?id=EJ1117604>
- Kintu, M. J., & Zhu, C. (2016). Student characteristics and learning outcomes in a blended learning environment intervention in a Ugandan University. *Electronic Journal of e-Learning*, 14(3), 181–195.
- Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. *International Journal of Educational Technology in Higher Education*, 14(1). <https://doi.org/10.1186/s41239-017-0043-4>
- Magnaye, R. P. (2020). Self-perception of ABM students towards their academic, social and emotional college preparedness. <https://files.eric.ed.gov/fulltext/ED612049.pdf>
- Manguiat, C. D., & Cuenca, Z. M. (2021). Support to modular learning modality and students' achievement in TLE 7: Basis for curriculum innovation. Proceeding of the 2nd World Conference on Education, Law, and Technology (WCELT) 02 – 04 July 2021. *IOER International Multidisciplinary Research Journal*. <https://www.ioer-imrj.com/wp-content/uploads/2021/08/253.-Support-to-Modular-Learning-Modality-and-Students-Achievement-in-TLE-7-Basis-for-Curriculum-Innovation.pdf>
- Menorca, J. B., Idos, G. G., Manangan, R. M., & Patacsil, J. A. (2017). The impact of gadgets in learning among grade 11 students. [https://www.academia.edu/35178120/THE\\_IMPACT\\_OF\\_GADGETS\\_IN\\_LEARNING\\_AMONG\\_GRADE\\_11\\_STUDENTS](https://www.academia.edu/35178120/THE_IMPACT_OF_GADGETS_IN_LEARNING_AMONG_GRADE_11_STUDENTS)
- Novitasari, D., Yuwono, T., Cahyono, Y., Asbari, M., & Sajudin, M. (2021). Effect of hard skills, soft skills, organizational learning and innovation capability on Indonesian teachers' performance during COVID-19 pandemic. *Solid State Technology*. 63. 2927-2952.

Patrick, S., & Sturgis, C. (2015). Maximizing competency education and blended learning: Insights from experts. <https://files.eric.ed.gov/fulltext/ED557755.pdf>

Ruz, C. R., & Briones, E. O. (2021). Digital technology on modular distance learning and competencies of grade 9 students in Cookery, *IOER International Multidisciplinary Research Journal (IIMRJ)*. <https://www.ioer-imrj.com/wp-content/uploads/2021/08/107.-Digital-Technology-on-Modular-Distance-Learning-and-Competencies-of-Grade-9-Students-in-Cookery.pdf>

Technical Education and Skills Development Authority (TESDA). (2014). Training regulation Cookery NC II. <https://www.tesda.gov.ph/Downloadables/TR%20Cookery%20NC%20II.pdf>

### Copyrights

*Copyright of this article is retained by the author/s, with first publication rights granted to APJAET. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution-Noncommercial 4.0 International License (<http://creativecommons.org/licenses/by/4>).*