

# Teacher's Mobile Device and Exemplars for Remote Learning in Cookery

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**Abstract-** *The main objective of this study was to develop and a teacher's mobile device intended for Grade 7 Technology and Livelihood Education Cookery learners. It utilized descriptive-developmental-evaluative method of research using purposive sampling technique. Analytic rubric and evaluation tools are the main data gathering tools in assessing the developed mobile device. It involved participant-evaluators composed of fourteen (14) Junior High School Technology and Livelihood Education teachers, seven (7) school heads, and one (1) Education Program Supervisor. The evaluation revealed that the features (4.42), technicality (4.51), functionality (4.58), and safety (4.51) of the Teacher's Mobile Device were highly acceptable with a weighted mean respectively while the design was very acceptable with a weighted mean of 3.86. Some recommendations from jurors which were included in the enhanced Teacher's Mobile Device include taking utmost consideration of the least mastered learning competency in enhancing the device and exemplar and opening it to further development and enhancements. Since, the conduct of the was during the pandemic the author have not considered the perception of the learners, thus it is highly recommended to include the learners as evaluators since they are the recipient of the developed mobile device.*

**Indexed Terms-** *Mobile Device, Exemplar, Remote Learning, Instructional Material, Cookery*

## I. INTRODUCTION

Teaching TLE is through a mix of theory, demonstration and practical lessons which can be through working alone and as part of a group. Aware of the challenges experienced by students during the COVID-19 pandemic, the researcher, who teaches Junior High School (JHS) Technology and Livelihood Education (TLE), sees the need to be resourceful,

creative, and imaginative in improvising and designing devices that may help students acquire the teachings. It would accommodate remote learning through state-of-the-art equipment including whiteboards and visualizers. It would be designed with an area for theory work, teacher demonstration and a newly fitted area for practical lessons. Face-to-face teaching sessions and tutorials following strictly of the health protocol can be done with the use of the foldable table. TLE is a skill subject, hence, the teacher must engage students in experiential, contextualized and authentic teaching-learning process.

With these premises, the motivation of the researcher is to develop a foldable mobile table in teaching JHS TLE which would serve as innovative device for remote learning with respect to its design, use, and safety features. The purpose of this study was to develop and assess the teacher's mobile device for Grade 7 TLE Cookery. Specifically, it determined: 1) the learning competencies that have been least successfully attained; 2) the device and instructional material for remote learning that may be created for cookery classes; 3) the level of acceptance of the teacher's mobile device and lesson exemplars for remote cookery lessons in terms of design, features, technicality, safety, and functionality; and 4) the recommendations and/or modifications that can be made to enhance the instructional device for remote learning of Junior High School Technology and Livelihood Education.

This study is delimited to Grade 7 TLE Cookery offered by only seven secondary schools in Mercedes District namely Manguisoc NHS, Mercedes HS, San Roque HS, Lalawigan NHS, Pablo Villafuerte NHS, Pambuhan NHS, and Caringo HS. The instructional device evaluators were composed of Junior High School teachers of the subject, school heads, and the Education Program Supervisor.

II. METHODOLOGY

This study utilized Descriptive-Developmental-Evaluative research method (Mercado, 2004). The descriptive technique was used to provide a thorough description and analysis of the current situation; the development technique was used to subject the innovation device to a systematic examination of planning, designing, and developing to meet the requirements of internal consistency and effectiveness; and the evaluative technique was used to assess the innovation device’s suitability as a teaching tool for TLE in Grade 7 Cookery.

The innovation device was evaluated by fourteen (14) JHS TLE teachers, seven (7) school heads, and one (1) EPS. The researcher gathered data by personally administering the evaluation forms to the participants wherein safety and health protocols of the DepEd, DOH and IATF were considered. Recommendations on how to further improve the foldable mobile table on the space provided in the rubric was considered in the revision of the study

In the analysis of the data gathered, weighted mean using 5-point Likert scale was adapted to determine its acceptability in terms of features, technicality, functionality, safety and design.

Moreover, the researcher also developed lesson exemplars based on the least mastered learning competencies and it was also evaluated by the jurors.

III. RESULTS AND DISCUSSION

A. Least Mastered Learning Competencies in Grade 7 TLE Cookery

As shown in Table 1 it revealed that in the Learning Competency/Content. Carry out measurement and calculation in a required task obtained a low competency level, while other competencies as average competency level as the result of pre-test conducted as well on the result the NAT which far below the expectation of at least 75% mastery level.

Table 1  
Least Mastered Learning Competencies in Grade 7 TLE Cookery

Learning Competency/Content	Item No.	Level of Proficiency	responses per testitem				Total No. of correct Responses	Percentage of Mastery Level	Descriptive Equivalent (NAT Range)
			Mercedes District						
			MHS (180)	INHS (71)	NHS (93)	CHS(34)			
Explain concept in Cooker Discuss the relevance of the course Explore opportunities for Cookery as a career Generate business idea that relates with career choice in Cookery Utilize appropriate kitchen tools,		Remembering/ Understanding/	78	51	64	28	221	58.47	

equipment and paraphernalia	1-4	Analyzing/ Applying							Average
Maintain appropriate kitchen tools equipment and paraphernalia	5-8	Remembering/ Understanding/ Analyzing/ Applying	98	45	51	18	212	56.08	Average
Store and stack kitchen tools and equipment	9-12	Remembering/ Understanding/ Analyzing/ Applying	74	62	61	23	220	58.20	Average
Carry out measurements and calculation in a required task	13-16	Remembering/ Understanding/ Analyzing/ Applying	52	21	35	18	126	33.33	LOW
Calculate cost of production	17-20	Remembering/ Understanding/ Analyzing/ Applying	111	34	45	26	216	57.14	Average
Importance of Occupational Health and safety Procedures	21-24	Remembering/ Understanding/ Analyzing/ Applying	87	51	68	21	227	60.05	Low
Identify Hazards and Risks in the Workplace	25-27	Remembering/ Understanding/ Analyzing/ Applying	89	48	65	32	234	61.90	Average
Evaluate and Control Hazards and Risks in the Workplace	28-30	Applying/ Analyzing/ Evaluating	67	49	53	30	199	52.65	Average

B. Instructional material and device for remote learning in teaching Grade 7 Technology and Livelihood Education Cookery students

Instructional material and device for remote learning in teaching Grade 7 – Junior High School Technology and Livelihood Education was developed by the

researcher and named as Teacher’s Mobile Device and Lesson Exemplars. The figure below is the instructional mobile device that was developed to address the identified Least Mastered Learning Competency.

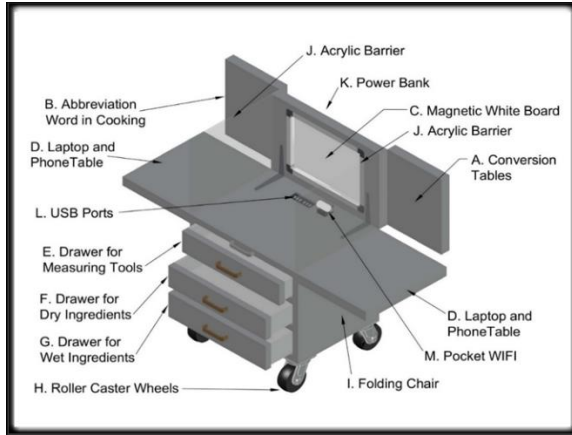


Figure 1. Parts of the Teacher’s Mobile Device

C. Level of Acceptance of the Teacher’s Mobile Device and Lesson Exemplars for Remote Learning

i. Teacher’s Mobile Device

The indicator that gained the highest weighted mean was functionality with a weighted mean of 4.58 interpreted as highly acceptable. This was followed by the technicality and safety provisions with a weighted mean of 4.51 interpreted as highly acceptable respectively. Next are the indicators along features with 4.42 interpreted as highly acceptable. Last are the indicators along design with a weighted mean of 3.86 interpreted as very acceptable. Overall, the result of the evaluation of the teacher’s mobile device gained a grand mean of 4.38 interpreted as highly acceptable.

Table 2  
Summary of Results of Evaluation of the Teacher’s Mobile Device (n=22)

Indicators	Weighted Mean	Interpretation
Design	3.86	Very Acceptable
Features	4.42	Highly Acceptable
Technicality	4.51	Highly Acceptable
Functionality	4.58	Highly Acceptable
Safety	4.51	Highly Acceptable
<b>Grand Mean</b>	<b>4.38</b>	<b>Highly Acceptable</b>

Legend:

Scale	Range	Verbal Interpretation
5	4.20 – 5.0	Highly Acceptable
4	3.40 – 4.19	Very Acceptable
3	2.60 – 3.39	Acceptable
2	1.80 – 2.59	Fairly Acceptable
1	1.0 – 1.79	Not Acceptable

ii. Lesson Plan Exemplar

A Lesson Plan Exemplar is an exceptional example of a teacher’s “roadmap” for a lesson. It contains a detailed description of the steps a teacher will take to teach a particular topic. In this study, it refers to the lesson plan for Grade 7 TLE Cookery covering the least mastered learning competency “carry out measurements and calculation in a required task” with a mastery level of 33.33 interpreted as “low”, and was the basis of the proposed teacher’s mobile table and lesson exemplar. It was evaluated by the EPS in TLE in the Division of Camarines Norte.

Table 3  
Parts of Lesson Exemplar

Indicators	Features of Each Part	E	NE
<b>Introduction</b>	Learning Competency	/	/
	Learning Outcomes	/	/
	Learning Context	/	/
	Content and core content	/	/
	Values	/	/
<b>Development</b>	Development Activities	/	/
	Recall Activities/ Formative Assessment	/	/
	Activities to strengthen collaborative skills	/	/
<b>Engagement</b>	Learning Opportunities	/	/
	Hands-on Activities	/	/
	Learning points	/	/
	Outputs or products	/	/
	Reflection activities/ Formative Assessment	/	/
	Activities to strengthen critical thinking skills	/	/
<b>Assimilation</b>	New Skills	/	/
	Habits of Minds	/	/
	Life Skills	/	/
	Relearning Activities/ Formative Assessment	/	/
	Activities to Strengthen Creativity Skills	/	/

Legend: E- Evident; NE-Not Evident

Overall, the lesson exemplar was rated by the jurors as exceeds set standards in all indicators along content, structure and sequence, functionality or usability and design composition and layout. This means that all descriptions or indicators were satisfied thus the lesson exemplar incorporated features not included in the descriptors but contributed to the enhancement or enrichment of the segments or to the overall impact of the materials.

Table 4

Evaluation of the jurors of the lesson exemplar as to its content, structure and sequence, Functionality or usability and design composition and layout

Elements/ Categories	Descriptors/ Indicators of TheStandards	Exceeds Set Standards	Meets Set Standards	Fall Short to Set Standards
Content	<p>Manifests congruence to the Most Essential Competencies, anchored on the DepEd Vision-Mission Values, link to previous and present competencies and coherence among the different segments or parts.</p> <p>Contains level/ ability-appropriate needs-based and learner-centered contents that enhance cognitive task(s). Higher Order Thinking Skills, metacognitive engagement and other 21+ century skills.</p> <p>Contains sufficient contents (activities, tasks, assessment, etc.) and reasonable work load that are appropriate to the segments or parts as described in the format.</p> <p>Highlights constructivist, inquiry- based, reflective, collaborative, and integrative pedagogical approaches.</p> <p>Varies dynamics for individual, pair and group activities that promote self-learning collaboration and creativity through real-world context, situation and tasks.</p> <p>Present error-free (conceptual and factual contents).</p>			
Structure and Sequence	<p>Contains all parts as specified in the format and are arranged in the given order.</p> <p>Manifests systematic presentation of contents (logical chronological psychological simple to complex etc.)</p> <p>Presents contents in varied media (video, audio, written, visual and/or combination), formats (word, PDF, photo), and style (info graphics, graphic organizers) from different credible sources that are cited.</p> <p>Meets required maximum number of pages without sacrificing important segment(s) or content(s).</p> <p>Provides and labels mandatory and optional tasks for the learner.</p>			
Functionality/ Usability	<p>Allows easy access, use and navigation for learners to be accountable in successfully completing all activities, tasks, assessments, etc.</p> <p>Allows flexibility and applicability to individual, small- and large-scale audience.</p> <p>Allows easy facilitation for teachers, parents or any person to serve as guide for learners on the use of learning module, fits print digitized and online format and is readily convertible adoptable to another format.</p> <p>Provided self-help instructions, user's guide rubrics and other troubleshooting support to the learner.</p> <p>Ensures learner's successful completion of the module using</p>			

	typical equipment and materials that are available without or with less cost.			
Design Composition and Layout	Adheres to the elements of graphic design: font style, font size, spacing, line, shape, colors, texture, etc. Follows principles of design: movement, rhythm proportion.	/		

**Legend:**

**Exceeds Set Standards-** all descriptions or indicators were satisfied thus the lesson exemplar incorporated features not included in the descriptors but contributed to the enhancement or enrichment of the segments or to the overall impact of the materials.

**Meets Set Standards-** One or two descriptors/indicators were not satisfied. The exemplar satisfied basic requirements for sufficiency and quality in terms of the descriptors indicators.

**Falls Short to set Standards-** three or more descriptors/indicators were not satisfied. This exemplar significantly lacked basic requirements for sufficiency and quality in terms of the descriptor/ indicators.

A. Recommendations and/or modification incorporated to improve the developed Teacher’s Mobile Device for Grade 7 TLE Cookery

The jurors recommend that the teacher’s mobile table be designed as collapsible for easy transport and safekeeping, that they should add acrylic barrier, that installation and set-up should be easy, and that they must place a label in each drawer or compartment. The evaluators gave their recommendations for each of the five criteria along design, features, technicality, functionality and safety provision. These recommendations were integrated in the final revision of the multifunctional table.

**Table 5**  
**Recommendations to improve the Instructional Device**

Recommendations	Frequency	Action Taken
<b>A. Design</b>		
Should be designed as collapsible for easy transport and safekeeping	3	Accepted
<b>B. Features</b>		
Add acrylic barrier	5	Accepted
<b>C. Technicality</b>		
Installation and setup be easy on the part of the students	4	Accepted
<b>B. Functionality</b>		
Place a label in each compartment	10	Accepted
<b>C. Safety</b>		
Provide a lock system to secure the materials inside it	5	Accepted

**CONCLUSION**

After a thorough analysis of the findings, the researcher has drawn the following conclusions: 1) there is a need to develop lesson exemplar and teacher’s mobile device in order to address the identified least mastered learning competency; 2) the teacher’s mobile device and lesson exemplars may improve the competency of Grade 7 TLE Cookery students in the locale of the study; 3) the teachers’ mobile device was highly accepted along the criteria of design, features, technicality, functionality, usability, and safety while the lesson exemplar was rated “exceeds set standards” by the jurors along its content, structure and sequence, functionality and usability, and design composition and layout; and 4) recommendations from the jurors were incorporated in the developed teacher’s mobile device.

**RECOMMENDATIONS**

The following recommendations to the area of research and development are hereby given: 1) the

researcher should consider the identified least mastered learning competency in developing the device and exemplar; 2) elements influencing learning, including tools and equipment, instructional strategies, and environment, must be taken into account; 3) even if the device is already found highly accepted, it is open for further development and enhancements; and 4) the developed teacher's mobile device and exemplar should be evaluated by other experts in the field for further improvements. Conferences or meetings with the students, teachers, and parents will be most appropriate to disseminate the study's findings. Prior to the utilization of the mobile device it must be subjected to the review, validation and approval of the Schools Division Office before it will be implemented in accordance with Deped Order # 35 s.1988.

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