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Research Article

Digitalized Learning Module in Cookery for Grade 11 Students

Patrick A. Palomeras*

Graduate Studies, Marikina Polytechnic College, Marikina City, The Philippines

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*Corresponding author:

E-mail:

thanyatida@gmail.com

ABSTRACT

This study focused on the development and evaluation of the Digitalized Learning Module in Cookery for Grade 11 Students of a public national high school in Antipolo City for the third quarter of the school year 2022-2023. In this study, weighted mean was utilized to ascertain how well the created digitalized learning module in cookery for Grade 11 students was received by instructors and expert responses. Independent-samples z Test was utilized to determine whether there was a statistically significant difference between the two sets of respondents' assessments of the created digitalized learning module in cookery for Grade 11 students. The study involved 30 respondents to complete the research investigation. It was revealed that both the TLE/TVL experts and TLE/TVL teachers agreed that the use of Digitalized Learning Module in Cookery among Grade 11 Students and its evaluation received very satisfactory ratings across multiple quality dimensions. Further, adopting a Digitalized Learning Module in Cookery for Grade 11 students can help improve their academic performance even when learning online. The Digitalized Learning Module may be a very useful tool to facilitate teaching Cookery for Grade 11 TVL class that could prepare students to develop critical thinking which may lead to higher academic performance in the subject. The use of the strategy is recommended for further research and may be applied to other subjects.

Keywords: *Digitalized learning module, Teaching strategy, Cookery*

Introduction

The quality of education is impacted by the usage of technology in the classroom and how much interaction there is between the students and the course materials. Additionally, it offers a selection of platforms that can be used to meet the various learning preferences of students.

There are many types of modalities to be used in case there are interruptions to continuing education, per DepEd Order No. 12, series 2020. The blended distance learning option is a fusion of any of the distance learning subcategories, including online distance learning and modular distance learning.

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Based on the Basic Education Learning Continuity Plan in the Time of COVID-19 Department of Education released on May 2020 as enclosure of DepEd Order No. 012, series 2022 stated that asynchronous and synchronous online learning should be used in the aforementioned learning delivery modality, according to the memorandum.

Synchronous learning is a type of online or remote learning that takes place in real-time and involves teachers and students interacting on a virtual platform at a predetermined time. Real-time contact is not necessary for asynchronous learning; instead, students can access the material whenever it best fits their schedules and complete the activities and tasks by the due date. Self-Learning Modules (SLMs), which can be used for offline and online learning, are encouraged by the Department of Education and should be made available in print and digital versions. In the study of Perdana, et.al (2021). entitled Digitalization of learning media through digital book development using the flipbook application discussed that is crucial to fully incorporate technology into the learning process because of the immense potential for use that the creation and advancement of information and communication technology, which permeates many facets of human existence, had.

Ramirez and Mercado (2019) identified and described the use of e-books as instructional materials in scientific learning among junior high students at the University of Batangas, Batangas City. In the paper, it showed that both teachers and students said that the curriculum covers a wide range of important topics, and that each section or unit provides a lot of tasks. The findings indicate that there are no significant differences in teachers' and students' assessments of the content, designs, and graphics of e-books used as science instructional tools. The use of an electronic book enables students to more successfully complete the content need, according to teachers and students alike. This means that the use of digital platform in teaching lessons can become an effective tool in facilitating learning among students.

The study's objective, according to Putri, (2020), is to develop a digital module based on mathematical communication skills. This development research is being conducted to determine how ineffective learning materials are employed and how well students understand relational and functional mathematics. One approach to solving this problem is to create a digital training module using media. This study was carried out using the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) research and development approach. The results showed that the digital module is highly valid, with a total expert validation of 95.1% and a rating of "very good." With a total, the students' response to the digital module is likewise considered to be extremely positive. What Putri did in their paper only proves that the use of digital module based on mathematical communication skills in learning math lessons may help students understanding and mastery of the subject.

Purpose of the Study

This study focused on the development and evaluation of the Digitalized Learning Module in Cookery for Grade 11 Students of Old Boso-Boso National High School, Antipolo City for the Third (3rd) Quarter of the School Year 2022 - 2023.

It specifically sought responses to the following questions:

1. What were the least mastered cookery competencies of Grade 11 Students based on the results of Mean Percentage Score (MPS) during the third (3rd) quarter Periodical Examination?
2. What was the evaluation of TVL/TLE teachers and TVL/TLE/ICT expert respondents on the Digitalized Learning Module in Cookery for Grade 11 Students with respect to the following criteria?
 - a. Content quality
 - b. Instructional Quality
 - c. Technical Quality
 - d. other findings
3. Was there a significant difference between the evaluations of the two groups of respondents on the Digitalized Learning Module in Cookery for Grade 11 Students in terms of the abovementioned criteria?

- 4 What were the comments and suggestions of the respondents for further improvement of the Digitalized Learning Module in Cookery for Grade 11 students?

Scope and Delimitations of the Study

The third (3rd) quarter of the academic year 2022–2023 was the focus of this study's development and evaluation of the digitalized learning module in cookery for Grade 11 students of a public national high school in the City of Antipolo. In the study, selected competencies were chosen because these are the most important skills in cookery that must be developed among the learners. The results of the Mean Percentage Scores (MPS) from the Third (3rd) Periodical Examination of the School Year 2021–2022 served as one of the primary references for developing the DLM in which researcher requested for a copy of the MPS results from teachers who handling Cookery subject, all competencies were ranked with poor proficiency ratings.

Method of Research Used

This study utilized the descriptive method of research to evaluate the use of the Digitalized Learning Module in Cookery for Grade 11 Students.

Sources of Data

The respondents of the study were thirty (30) selected TVL/TLE teachers who are public school teachers in the City Schools Division Office of Antipolo who handle cookery subjects and thirty (30) TVL/TLE/ICT Experts in the City Schools Division Office of Antipolo who were chosen by means of purposive sampling. Purposive sampling was used to involve participants with specific set of criteria who are needed in the study.

Data Gathering Instruments

The main instrument used in this study was a survey questionnaire. Results of the Mean

Percentage Score (MPS) during the 3rd Periodical Examination School Year 2021-2022 and the developed Digitalized Learning Module in Cookery for Grade 11 Students.

The survey questionnaire used by the researcher is adapted from City Schools Division Office of Antipolo. The said tool was used by the Division for evaluation of non-print learning materials. In this study, the researcher adapts and customize the tool with 4 Likers- Scale to be suited in the current study. The research instrument that was used in the study were validated by experts in the field from whom the researcher sought help from.

Data Gathering Procedure

In the process of gathering, a letter of request to conduct the study was prepared. The first data needed of the researcher is the results of Mean Percentage Scores (MPS) during the Third (3rd) Periodical Examination for School Year 2021-2022 of the public national high school involved in the study. The researcher prepared a request letter to ask the permission of TVL Grade 11 teacher to had a copy of the results of the Mean Percentage Score (MPS) result during the Third (3rd) Periodical Examination for School Year 2021 – 2022. The second data is the evaluation, comments and suggestions of the two groups of respondents, thirty (30) TLE/TVL teachers and thirty (30) TLE/TVL/ICT experts.

Statistical Treatment of Data

In this study, weighted mean was utilized to ascertain how well the created digitalized learning module in cookery for Grade 11 students was received by instructors and expert responses. Independent-Samples z Test was utilized to determine whether there was a significant difference between the two sets of respondents' assessments of the created digitalized learning module in cookery for grade 11 students.

Results and Discussion

Table 1. Least Mastered Competencies for Digitalized Learning Module in Cookery for Grade 11 Students Based on the Result of Mean Percentage Scores during the 3rd Periodical Examination School Year 2021 – 2022

| LEAST MASTERED COMPETENCIES | MPS | RANK |
|--|------------|------|
| | PERCENTAGE | |
| LO 3. Prepare sauces required for menu items | 33.43 | 1 |
| LO 1. Prepare poultry and game dishes | 34.86 | 2 |
| LO 2. Prepare soups required for menu items | 40.00 | 3 |
| LO 2. Cook poultry and game bird dishes | 48.00 | 4 |
| LO 1. Prepare stocks for menu items | 49.71 | 5 |

Table 1 contains the least mastered competencies from the result of 3rd Quarterly test of School Year 2021-2022 and served as basis to develop Digitalized Learning Module in Cookery for Grade 11 Students. It also shows the list and rank of the least-mastered skills of Grade

11 students in Cookery that could be developed into Digitalized Learning Module in Cookery for Grade 11 Students based on the results of Mean Percentage Scores (MPS) during the 3rd Periodical Examination 2021 – 2022 Quarterly Test.

Table 2. Summary of Evaluation of the Two Groups of Respondents of the Developed Digitalized Learning Module in Cookery for Grade 11 Students for an Enhanced Performance

| CRITERIA | Respondents | | | |
|----------------------------|-------------|-----------|-------------|-----------|
| | Teachers | | Experts | |
| | OWM | VI | OWM | VI |
| a. Content Quality | 3.85 | VS | 3.80 | VS |
| b. Instructional Quality | 3.88 | VS | 3.79 | VS |
| c. Technical Quality | 3.74 | VS | 3.74 | VS |
| Grand Weighted Mean | 3.82 | VS | 3.78 | VS |
| d. Other Findings | 3.63 | NP | 3.58 | NP |

Note: OWM – Overall Weighted Mean

The evaluation of the two groups of respondents on the created digitalized learning module in cooking for Grade 11 students is summarized in Table 2 in terms of the content quality, with overall weighted means of **3.85** and **3.80**, instructional quality, with overall weighted means of **3.88** and **3.79**, and technical quality, with overall weighted means of **3.74** and **3.74** as revealed by the **grand weighted mean of 3.82** and **3.78**, while other findings.

This only implies that the use of digitalized learning module is highly favored by the teacher respondents and the experts involved in the study. This means that the use of the

forementioned materials will have a better chance of helping improve learners' academic achievement in Cookery.

Meanwhile, the evaluation of the two groups of respondents on the created digitalized learning module in cooking for Grade 11 students is summarized in Table 2 in terms of the content quality, with overall weighted means of **3.85** and **3.80**, instructional quality, with overall weighted means of **3.88** and **3.79**, and technical quality, with overall weighted means of **3.74** and **3.74** as revealed by the **grand weighted mean of 3.82** and **3.78**, while other findings showed overall weighted means of **3.63** and **3.58**.

Table 3. Summary of Test of Difference in the Evaluation of the Two Groups of Respondents on the Developed Digitalized Learning Module in Cookery for Grade 11 Students

| Criteria | Teachers | | Experts | | Computed z Value | Decision | Interpretation |
|-----------------------|----------|------|---------|------|------------------|-----------------------------------|-----------------|
| | OWM | S | OWM | S | | | |
| Content Quality | 3.85 | 0.25 | 3.80 | 0.36 | 0.63 | Fail to Reject the H ₀ | Not Significant |
| Instructional Quality | 3.88 | 0.25 | 3.79 | 0.37 | 1.09 | Fail to Reject the H ₀ | Not Significant |
| Technical Quality | 3.74 | 0.36 | 3.74 | 0.35 | 0.00 | Fail to Reject the H ₀ | Not Significant |
| Other Findings | 3.63 | 0.62 | 3.58 | 0.62 | 0.36 | Fail to Reject the H ₀ | Not Significant |

Note: $\alpha = 5\%$

Critical z Value = 1.96

Based on Table 3, the evaluations of the teachers and expert respondents on the developed Digitalized Learning Module in Cookery for Grade 11 Students regarding content quality, instructional quality, technical quality and other findings do not indicate significant difference with the corresponding computed z values which are lesser than the critical z value. This implies that the respondents' evaluations are the same. This means that even those who are adept in creating and implementing instructional materials see that the use of the Digitalized Learning Module in Cookery will meet its purpose of educating learners and help in improving their academic achievement in learning cookery topics.

Conclusions

Based on the results of this study, the conclusion derived was:

1. The identified least mastered skills/competencies of Cookery Grade 11 students could serve as basis for the development of Digitalized Learning Module in Cookery for Grade 11 Students.
2. Both the TLE/TVL experts and TLE/TVL teachers agreed that the Digitalized Learning Module in Cookery for Grade 11 Students are very satisfactory in terms of content quality, instructional quality, technical quality, and the other findings give remarks not present.

3. Adopting a Digitalized Learning Module in Cookery for Grade 11 students can help improve their academic performance TLE/TVL even when learning online.
4. The Digitalized Learning Module may be a very useful tool to facilitate teaching Cookery for Grade 11 TVL class that could prepare students to develop critical thinking for higher academic performance.

Recommendations

Based on the findings and conclusions drawn, the following are recommended:

1. It is recommended for use in blended modality that suits students individual learning pace and increase students' achievement in Cookery 11 not only in Old Boso-Boso National High School instead it can be use by the all-public schools in Division of Antipolo.
2. Specifically, the Digitalized Learning Module in Cookery may be used in times of class suspensions and other interruptions which are beyond the control of the school.
3. Implementing the Digitalized Learning Module in Cookery for Grade 11 Students is highly encouraged as long as it is utilized properly and does not divert students from their academic work.
4. Future researchers may work on other aspects of the instructional material for the improvement and enhancement of the Digitalized Learning Module in Cookery for Grade 11 Students.

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