

# A Development of Chinese and Japanese Culinary Teaching Materials in Asia Culinary Courses

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## ABSTRACT

The development of Asian Cuisine teaching resources is crucial, as there have been no updated Asian culinary teaching materials in the Culinary Arts Vocational Education Study Program for the last three years, according to a needs analysis. This will facilitate the acquisition of references in the form of legitimate sources of instructional materials for lecturers and students. Students are given important activities to complete such as discovering, exploring, assessing, and expressing their thoughts. A successful learning process will be supported by effective learning tools that facilitate student-centered activities and bridge that gap between the subject and its context in everyday life. This is a case study of development using the ADDIE method. The questionnaire is the instrument used. The data were analyzed using the quantitative descriptive analysis technique. The findings of the content expert examination indicated that the teaching materials for Chinese and Japanese Culinary obtained a very good rating of 90.84 percent, while the learning design experts indicated that the teaching materials received a very good rating of 95. Additionally, material experts' recommendations for photos of traditional Japanese food items should be included in the sub material.

**Keywords:** *Teaching Materials, Development, Asian Cuisine.*

## 1. INTRODUCTION

Learning or lectures on Asian culinary courses in the Culinary Arts Vocational Education study program is one of the mandatory courses programmed by students after graduating from Nusantara culinary courses. With the new study program, namely Culinary Arts Vocational Education, the name of this course also underwent an adjustment to the name, namely Asian Culinary. Based on observations and interviews with previous lecturers that there are difficulties in teaching Asian cuisine, where the contributing factor is that there are no standard learning resources in the study program, so the materials that are prepared and taught are fully extracted from the internet. So lecturers do not have a special handle on Asian Culinary teaching materials. This condition results in a lack of mastery of the material by students, where the recipes that are practiced do not meet the standard recipe standards from their country of origin, considering that these recipes have not gone through trials which are summarized into a collection of recipes.

As long as the learning process is supported by appropriate learning resources, it is possible to promote student-centered learning and relate subject matter to its

real-world application. Currently, the availability of teaching materials to support students carrying out meaningful activities and to be able to bridge the gap between theory and practice, materials, and context are still few or even rare. Considering the characteristics of Asian culinary learning whose object of study is real/concrete, then linking concepts and materials in Asian Culinary lectures with context is an important and absolute thing. As a result, this research is critical since it will result in a tangible product in the form of teaching materials using a contextual approach. This type of teaching material creates a novelty, both conceptually and practically, in the development of student-centered learning methods.

Tegeh and Kirna [1] explains that the book of teaching used as book learning in the particular field of study, a standard guide compiled by experts in the field to the purposes and objectives of instructional. Additionally, educational materials were praised for their adequate teaching qualities and ease of comprehension by users, which enabled them to complement a teaching program. Therefore, instructional materials are vital to the learning process [2].

Good teaching materials, for example, must be substantial and well-organized in order to satisfy learning objectives, must include the curriculum's objectives/competencies, methods, and assessments, and must be compatible with the curriculum's objectives/competencies, methods, and assessments. A high level of readability is achieved by employing language that students can quickly absorb and grasp, as well as attractive formats and physical forms of educational materials [3][4].

**2. METHOD**

This is a research and development project (R & D). R & D is a type of research that is used to develop and test products [5]. The ADDIE model was chosen because it is a methodically designed model built on the foundation of learning design. This strategy is structured around a series of steps designed to address specific learning issues.

The ADDIE model was chosen because it is a methodical approach based on an understanding of design concepts. This technique is composed of a series of steps aimed at resolving specific learning difficulties, which include analysis, design, development, implementation, and evaluation. The ADDIE paradigm, according to [6], takes a systems approach. The systems technique deconstructs the learning planning process into steps, rationally organizes them, and feeds the results of each step into the next.

However, because to the current state of the pandemic, it has not been able to carry out/phase of implementation in schools. As a result, the researchers merely executed the three processes of the ADDIE model creation, analysis, design, and development.

- 1) Analysis (analysis), this stage is the first step to develop learning teaching materials in accordance with learning objectives in which researchers obtain several problems from the information obtained. So that researchers find solutions and design effective treatments by developing teaching materials.
- 2) Design (design), the design stage includes some planning for material development.
- 3) Development, contains activities and creates and modify teaching materials.

The data analysis technique of the validators assessment results uses the following formula [7],[8].

$$Va = \frac{TS_e}{TS_h} \times 100\% \tag{1}$$

In this study, validation was performed by two material experts and two learning design experts, hence the average was used to establish the level of validity. The formula used is as follows:

$$V_1 = \frac{Va_1 + Va_2}{2} = \dots \% \tag{2}$$

$$V_2 = \frac{Vb_1 + Vb_2}{2} = \dots \% \tag{3}$$

$$V_{gab} = \frac{V_1 + V_2}{2} = \dots \% \tag{4}$$

Information:

*V = Combined Validation*

*Va<sub>1</sub> = Expert validation 1 (material)*

*Va<sub>2</sub> = Expert validation 2 (Material)*

*Vb<sub>1</sub> = Expert validation 1 (learning design)*

*Vb<sub>2</sub> = Expert validation 2 (learning design)*

*TS<sub>h</sub> = maximum expected total score*

*TS<sub>e</sub> = Total empirical score*

Source: adapted from [8]

**Table 1.** Validity Level Criteria

Percentage	Validity Level
81%-100%	Extremely Valid, can be used without revision
61% - 80.99%	Valid, or usable but need minor revision
21%-40.99%	Invalid, or should not be used
0% - 20.99 %	Totally invalid or should not be used

The test subjects at the development stage were two learning design experts, four content experts who were lecturers in the Culinary Arts Vocational Education study program. Learning design experts are asked to be willing to review and correct the draft development of teaching materials related to construction aspects, namely clarity and use of communicative language, clarity of learning objectives in each activity as well as on the objectives of each learning activity, presence and clarity of identity of teaching materials, clarity of instructions and steps each activity in the teaching materials. The technical aspect consists of the suitability of the type and size of the letters, the suitability and accuracy of the size of the placement of images, tables, diagrams, or illustrations, as well as the attractiveness of the display or presentation. Content experts are asked to be willing to examine the truth/accuracy of the material, the coverage of the material, and the suitability of the material with competency standards and basic competencies.

When the questionnaire was filled out, the data analysis technique was utilized to gather all the qualitative data, such as the comments, criticism and suggestions for improvement, that was obtained. Revisions are made to the teaching material products based on the findings of data analysis and research.

The development stage of teaching materials refers to the ADDIE development model, but this implementation only includes three stages, namely as follows: The

Analyze stage includes needs analysis activities (needs assessment), curriculum analysis, and examines the characteristics of students who will become users of teaching materials. Needs analysis and curriculum analysis are conducted to develop core competencies, basic competencies, and achievement indicators. The Design phase includes the preparation of material maps according to core competencies, designing formats and components as well as compiling the framework of the contents of teaching materials. The Development phase includes the preparation and writing of teaching materials in accordance with the designs that have been made in the design step while the implementation stage has not been able to be carried out because the current situation is still a pandemic and the PPKM policy (Enforcement of Restrictions on Community Activities).

### 3. RESULTS AND DISCUSSION

#### 3.1 Results

ADDIE model selection is chosen since it over continuous improvement in every step, resulting to betterment of the material. It was also considered simple yet practical and systematic. In the analysis stage, enabling the researchers to gain analyze the competencies required of students, the students' characteristics, learning capacity, knowledge, skills, attitudes. It serves as a need analysis.

The design stage is where materials are selected based on the students' characteristics and the competency expectations, as well as the learning methodologies, forms, and evaluation systems. This stage involves the creation of instructional materials, which include the Preface, Table of Contents, List of Tables, Image List, and content. The development stage comprises assembling and writing drafts of instructional materials based on the drawings developed during the design stage. Additionally, the validation step is used to determine the practicality of a product. Validation of products is performed by examination by material/content specialists and professionals in instructional design.

**Table 2.** Material Expert Assessment

No	Criteria	Score	
		$Va_1$	$Va_2$
1	The accuracy of the chapter title with the material contained in each chapter	5	5
2	Congruence between key concepts and content	3	5
3	Clarity of content outline	3	4
4	Suitability Among standard competence and learning objectives	5	5
5	Operational learning objectives	5	5

6	Match between learning objectives and material exposure	5	5
7	Clarity of material description	4	4
8	Clarity of the examples provided	4	4
9	Compatibility between tables, charts, pictures/illustrations and materials	3	5
10	The accuracy of selecting the content of the summary	5	5
11	Conformity between chapter end tests and learning objectives	5	5
12	The accuracy of the bibliography can be used as a reference to find reading sources that are relevant to the material	5	5
Total		52	57
Percentage		86.6 7%	95%
Average percentage		90.84%	

Each expert assesses teaching material items to ascertain the design and viability of the content in order to identify potential flaws and strengths. The validation of instructional materials developed by learning design experts and content/material professionals is detailed below. Two professors who were evaluated on their competence took part in the expert design study. The content/material specialists are comprised of four lecturers with culinary expertise from the Culinary Arts Vocational Education study program. The results of the material expert assessment are summarized in Table 2.

Based on the data in Table 02, it can be calculated the percentage of assessment by the two material experts, namely 90.84%. Some inputs from material experts through open questionnaires are summarized as follows:

- 1) It's better to add an example of an image in the sub material for typical Japanese foods.
- 2) Based on the data in Table 3, it can be calculated the percentage of assessment by the two learning design experts, namely 95.55%. Learning design experts provide input through an open questionnaire with a statement that teaching materials can be used with minor revisions. Furthermore, some suggestions and inputs are given, namely that it is necessary to give space in the module for students to try to do something (perhaps try a small practice) and analyze the process and results of student practice, so that feedback is written based on their experience in trying an activity that is able to train analytical power through several practical activities and then discussed at face-to-face meetings.

**Table 3.** Assessment of Learning Design Experts

No.	Criteria	Score	
		$Vb_1$	$Vb_2$
1	Cover quality	5	5
2	Attractive cover design	5	5
3	Typing layout accuracy	5	5
4	Consistent use of spaces, titles, subtitles, and typing material	4	4
5	Clarity of writing/typing	4	5
6	Completeness of components in each chapter of teaching materials	4	5
7	The accuracy of the presentation of the material	5	5
8	Correct placement of charts, tables, or illustrations	5	5
9	Clarity of the order of presentation of the material	5	5
Total		42	44
Percentage		93.33%	97.78%
Average percentage		95.55%	

### 3.2 Discussion

This research on the development of teaching materials only goes through formative evaluation to collect data at each stage that is used for improvement [1]. Evaluation is carried out related to the research development stage to improve the resulting product development [9]. Validation results the draft of teaching materials assessed by 2 validators is seen from the aspect of the material being assessed and overall is in the range of 81%-100%. This means that the draft of teaching materials in terms of material has very valid validity and the results of the validation of 2 validators from the aspects of instructional design are assessed and overall well-being in the range of 81%-100%. This means draft instructional materials that are developed have the validity of the very valid. Based on validation results, we can conclude that the draft materials that developed a valid use for students with the hope to improve the ability to design, prepare, process and present the appropriate Asian culinary standards expected, the results of the research is consistent with research that is carried out by [1][8][10]. Results of the research showed that the device that made a very valid and practical use by students [11]. However, this study is only done until the validation of products for conditions that do not allow for field trials due to the Covid-19 pandemic.

### 4. CONCLUSION

The results of the analysis of development research can be concluded that the teaching materials in the form of a collection have a very valid level of validity or are feasible to be used and tested. However, due to the current Covid-19 pandemic, the stages used in the ADDIE development model, only use three stages. Therefore, the effectiveness and practicality of the teaching materials

developed by researchers cannot be known. For that, researchers hope to researchers further pleased to continue the research is to be able to conduct field trials to test the feasibility of this learning teaching materials.

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