The development of a pocket book as a learning resource at vocational high school

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Abstract. The change of education curriculum in Indonesia affects school subjects, including those taught in vocational high school’s culinary department. The addition of the fusion food material in the learning syllabus demands teachers to seek various learning resources. This study aimed to develop a pocket book on fusion food as a learning resource for vocational high school students. This was a R&D (research and development) which specifically used the 4D development model (define, design, develop, and disseminate). The research participants involved experts on learning material and media, as well as Grade 12 culinary students from state vocational high school SMKN 1 Kalasan. The data collection technique included observation, interviews, document studies, and a survey, while the data analysis technique was descriptive qualitative. The findings show that the feasibility of the fusion food pocket book is deemed very feasible as a learning resource with the average score of 88.9% from the material experts, 99.1% from the media experts, and 82.3% from the students.

1. Introduction
The change of the education curriculum from KTSP to the 2013 Curriculum affects the learning syllabus at the culinary department of vocational high school with the addition of the fusion food as a new learning material. Problems arise as there is a limitation on the available learning resources on the subject. Observations at several vocational high schools show that there has not been an official learning resource on the topic as teachers mainly give out handouts obtained from seminars. Moreover, although admittedly there are a lot of references on fusion food on the internet, they take a great variety of forms, ranging from journal articles, websites, and books, which are particularly costly and mostly in English. Observations done at the local bookstores show that indeed there are several books in Indonesian on fusion dishes, yet they lack the basic theoretical aspects needed for a learning material.

The term fusion food first appears in 1980 and refers to the mixed techniques and ingredients from the west and the east [1]. Later, the term evolves into any combination of cooking techniques and concoction of ingredients from different countries to create a single particular dish on purpose [2]. The goal of fusion food is ultimately the creation of a new dish and taste by synthesizing the concepts of food that are distinguishable from any food in the world [3]. In other words, fusion food must be unique as it is often born from various cultures. Still, a great possession of knowledge and skills is needed to prepare the dish in order to make the food sensible.

The culinary art development, therefore, demands the mastery of the fusion food material, whether by teachers or students. For this reason, this study attempts to develop a textbook on the subject. A textbook refers to a guidebook on learning which involves various topics from a particular field that addresses the curriculum [4]. A pocket book is one of the types of textbook. It is small, light, and should fit in a pocket [5] [8]. The need on the importance of the use of...
Textbooks in learning, whether in developing and developed countries, still show an incredibly high number [4]. In addition, textbooks are suitable for affective, psychomotor, and cognitive learning needs for students [6]. Therefore, the fusion food pocket book is developed to address the need of a concise and dependable additional learning resource.

2. Research Method

2.1. Method

This study is categorized as a research and development (R&D) study which used the 4D development model consisting of define, design, develop, and disseminate [7]. The data collection technique involved observation, interviews, document studies, and a survey, while the data analysis used the descriptive qualitative technique. Data were obtained using a four-point Likert-scale (1: not feasible, 2: less feasible, 3: feasible, 4: very feasible). The final result was in percentage and obtained through the following formula.

\[ \text{Percentage} = \frac{\text{Score}}{\text{Maximum Score}} \times 100\% \]  

The obtained data were then compared to the interval scale and converted into ordinal as seen in Table 1.

| Score Range (in an interval scale) | Category (converted into ordinal) |
|-----------------------------------|-----------------------------------|
| >80%                              | Very Feasible                     |
| 66% – 80%                         | Feasible                          |
| 56% – 65%                         | Not Feasible                      |
| <56%                              | Very Unfeasible                   |

Meanwhile, the fusion food pocket book development model can be described as follows.
3. Result and Discussion

3.1. Result

The research findings show expert validations on the learning material and the media, as well as student responses on the final product. There are four assessment indicators for the material experts, including the aspects of curriculum, content, benefit, and usability. Figure 2 depicts the assessment of the fusion food pocket book by the material experts with 90.6% for the curriculum, 87.8% for the content, 89.6% for the benefit, and 87.5% for the usability. The overall average percentage of the material experts is 88.9%, which can be categorized as very feasible (>80%).
There are five indicators in the assessment of the fusion food pocket book by the media experts. As shown in Figure 2, the curriculum aspect scores 100%, the display scores 97.9%, the content scores 98.4%, and the usability and benefit both score 100%, resulting in an average percentage of 99.1% by the media experts, which means that it is very feasible (>80%).

The student responses on the fusion food pocket book are based on four assessment indicators as illustrated in Figure 4. The display scores 83%, the content 79%, the benefit 81.5%, and the usability 85.9%, resulting in an overall average of 82.3%. In other words, the product is deemed very feasible by the students as the average percentage score is higher than 80%.
3.2. Discussion
Referring to Table 2, in order to examine the feasibility of the pocket book, the product assessments based on the media and material experts, as well as student responses must achieve a minimum percentage of 66% in order to be feasible for use. The findings show that the product scores 88.9% from the material experts, 9.1% from the media experts, and 82.3% based on the student responses. However, although the product has overall satisfying results across all assessments as it is deemed very feasible for use, there are several indicators in the fusion food pocket book that require further study to make the materials more comprehensive. Moreover, there needs to be further examination on the effectiveness of the product in the learning process at school.

4. Conclusion
This study has successfully produced a pocket book that is feasible for use based on the assessments from material and media experts, as well as well-received based on the student responses. In regard to that, the product has obtained a certificate of intellectual property rights. It is expected that the book may be of use by vocational high school teachers and students. Finally, support from the stakeholders will help the pocket book to develop further and have a wider distribution.

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