

## THE DEVELOPMENT MODULE LEARNING ON PRODUCT CAKE AT STATE VOCATIONAL HIGH SCHOOL

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### ABSTRACT

*Based on early observation, student Grade XI Patiseri subjects who took the product cake is still low, low estimated learning is due to limited learning resources or learning media, there are still to the media that there is a lack a lesson for a long time. Thus, designed and made a learning media as a module-powered printer configuration tool Module Learning for on product cake subject. The purpose of this research is to determine the validity and the practicality Module Learning to be worthy used in the field. This Research was carried out by using the research and development Research and Development (R&D) by using development Four-D model (4D).The procedure development Four-D (4D) that is Define Design, Develop and Disseminate. Type of data that is primary data where data that given by experts, teachers and students. Analysis techniques that the used data is a technique that is descriptive data analysis by describing validity and practicality module learning. Results obtained from the research development is as follows: (1) to produce a module learning for product cake subject; (2) The Validity is module learning declared valid in the matter in modules with the total value validity is 0,88 percent, to the format modules declared valid with the total 0,95 percent and (3) Practicality module learning based on a response teachers declared practical with the total 92,50 percent, and based on a response students declared practical with the total value 90.59 % in improving student performance. Based on the findings or was it was concluded that module learning is valid to use as a teaching in the gasoline fuel system training subject.*

**KEYWORDS:** *Modules, Learning, the Validity, the practicality.*

### 1. INTRODUCTION

Education is a learning process undertaken by a person to gain overall behavioral change, acquire skills and knowledge after graduation from education. Various efforts have been made by the government through the world of education, including vocational education. Vocational education not only creates students who can work after graduation, but vocational education also creates students who can open their own employment one of them in entrepreneurship (Ganefri, 2013: 8). With regard to improving the quality of education, the role of educators is crucial in conducting quality learning process. Learning process is said to be qualified when in the learning process students can achieve the expected learning objectives.

Based on the above description can be concluded that educators always strive to improve the quality of learning with the use of teaching materials so that students can achieve learning objectives. One way to achieve learning objectives by using teaching materials whose materials are well-structured. Teaching materials can facilitate understanding the concepts and be able to apply the

concept in the form of work skills so that the learning objectives can be achieved. The most important element of learning is the curriculum.

The curriculum serves as a tool and guidance for teachers, students, and community of educational institutions to implement the teaching and learning process in line with the expectations and objectives of education. According to Rusman (2009: 21) the curriculum is all the experience that has been planned to prepare students to achieve educational goals. Curriculum planning involves the collection, formation, synthesis, selection of relevant information from various sources. the curriculum is a set of plans and arrangements regarding the objectives, content, and lesson materials and ways used as guidelines for the implementation of learning activities to achieve certain educational goals. Among them is on learning activities of Technology and Vocational Education.

The technology and Vocational Education is an education that equips its graduates with certain competencies in order to be ready to use in a certain field of work. Technology and Vocational Education participating in developing creativity, motivating students and creating competent human resources is Vocational High School (SMK). According Ganefri (2013: 62) SMK is an educational institution that produces human resources who have academic ability according to the competence of each skill. Vocational students learn the theory and practice vocational, so that after they graduate will have enough experience to directly enter the world of work.

SMK Negeri 9 Padang is one of Tourism SMK which has three skill programs namely hospitality accommodation, catering service, and patiseri. The skill program is chosen by the students at the beginning of entry into SMK Negeri 9 Padang or since sitting in class X. SMK Negeri 9 Padang has a vision that is "superior in quality based on faith and taqwa towards SMK national and international" (Vision of SMK Negeri 9 Padang) . In accordance with the vision, SMK Negeri 9 Padang aims to improve the quality of education, so that the ability of its graduates can compete in the demands of the national and international workplace.

The program of expertise that supports the realization of the vision of SMK Negeri 9 Padang including the program of patiseri expertise in accordance with the purpose of the program of expertise of the patiseri according to the curriculum of SMK Negeri 9 Padang. The program of expertise of the patiseri has the aim to develop the students' competence that is students able to process and serve food in the field of Patiseri. Furthermore, according to the curriculum SMK Negeri 9 Padang is to equip learners with skills, knowledge and attitudes competent in the field of patiseri.

The patisserie skills program consists of normative, adaptive, and productive subjects. In Productive subjects there are some subjects that must be followed by students Patiseri including Products Cake subjects. This subject is followed by students of class XI Patiseri. Competencies that must be mastered by students on theoretical learning that students are able to describe understanding, type, equipment, and materials for cake processing. Students who master teori learning will prepare students who are creative, innovative, and productive at the time of practical learning. Students who have competence in processing and serving Products Cake can assist students in entrepreneurship. Students of SMK graduates are expected to enter and meet the demands of the job market or open their own business. Students can receive orders of various kinds of variations, shape and creativity Products Cake desired by consumers.

But in fact the students' competencies have not developed well. This can be seen through observation in the academic year 2015/2016 in Patiseri Expertise Program especially on Cake Product Lesson where the tendency of students is less able to develop their competence in knowledge about product cake. This can be seen when in carrying out the daily test Product Cake students still get a lot of low score. Based on observations and interviews conducted with subject teachers, students Expertise patiseri SMKN 9 Padang class XI who have studied subjects Product Cake seen from the value of daily test is still a lot of students who get the value under the KKM (minimal criteria mastery). This indicates that the learning process on the subject of cake products has not been maximized.

In addition, the phenomenon that appears that students lack confidence in their own abilities, when the daily test of students like to imitate the answers of friends. It can be seen that most of the students still have not mastered the theory of product cake theory. Product Cake lessons conducted on the program of patiseri expertise so far is by using lecture method, discussion, question and answer, and demonstration. The medium used in learning is a whiteboard, print media like a book about Products Cake. To be able to achieve student competence and memory required many guidebook reference and information about Products Cake. Selection of less appropriate teaching materials to make students quickly bored, not listening to teachers, so that students are less fond of these subjects. This affects the students' learning outcomes and motivation. Teachers are very important to choose the teaching materials used in the classroom. Teaching materials that can be used in the learning process are modules.

So far, Learning has not used the learning module. The unavailability of the learning module affects the students unable to learn independently at home. In the theory of learning students are still difficulties in understanding the subject matter Product Cake so that the expected student competence has not been achieved. Lack of students' understanding of theoretical learning also influences the learning practices of subjects Product Cake.

The purpose of student learning on the subject of Product Cake has not been achieved in the assumption due to the absence of modules distributed to students during learning. The modules available so far are only teaching devices held by teachers and not yet in accordance with the criteria of the learning module. The learning module criteria consist of module description, prerequisites, module usage instructions, module final goals, ability checks, core competencies, basic competencies, materials, summary, and evaluation. With the module students can learn independently at home before implementing the learning process in school.

During this time the module has not been distributed to students, so students do not have a handbook. Students are focused only from teachers giving examples by demonstrating material to be done by students, with only methods of demonstration, students will also easily forget the material given teachers. The module is part of print media that can be distributed to students. The modules are arranged so that the materials presented in teaching and learning activities are directed to the objectives to be achieved, the teacher acts as an organizer to enable more and more students to actively learn in order to achieve the teaching objectives.

Learning module can improve the quality of student learning process. The development of teaching materials learning module can also attract the attention of students so that it can grow students' learning motivation and students can learn independently. Therefore it is necessary to develop teaching materials by making learning modules on Cake Product Subjects that can be used as teaching materials by teachers and students on the subject of Cake Products. The purpose of this research to produce and develop learning resources in the form of learning modules that are valid, practical, and effective on the subject of Products Cake.

## **2. METHODS**

This research uses research and development (R & D) method. The model used in this research is the 4-D development model (Define, Design, Develop and Disseminate). Disseminate stage in this research is not done because considering the limitation of time and cost of researcher. This model is suggested by Sivasailam Thiagarajan, Dorothy S. Semmel and Melvyn I. Semmel. Trianto (2009: 189) which states "This model consists of 4 development stages of Define, Design, Develop and Disseminate or adapted into 4-D model".

## **3. RESULTS AND DISCUSSION**

### **3.1. Development Results**

#### **a. Define**

The discovery stage (define) is done to get an overview of conditions in the field. This stage analyzes the needs (needs analysis) needed for the process of making the learning module. At this stage the following steps are taken:

#### **1) Observation**

Observations made in SMK Negeri 9 Padang On Products Cake subject that is during the learning process of Product Cake does not use the learning module as a source of learning that can be used as a reference by students. Another problem faced by students is the lack of reference resources about the Products Cake lesson book, the lack of availability of learning resources in the form of books for the subject of Product cake in SMK State of 9 Padang.

During the learning process the teacher explains the lesson without much involving the students, then the learning process is still passive, only relying on the material from the teacher during face-to-face meetings this causes students to easily become bored and saturated during the learning process because of the less interesting lesson. While the problem faced by teachers is less teachers can make new innovations in the presentation of learning materials. Teachers are less able to make learning materials that can attract interest and attention of students to pay attention and study the subject matter presented.

#### **2) Interview**

The interview was conducted with two teachers subject Products Cake. The result of interview with Products Cake subject teacher at SMK Negeri 9 Padang that learners can not reach Minimum Exhaustiveness Criteria (KKM) applied in school for

Products Cake subject that is 7.5. In addition, in the learning process teachers use learning materials from internet searching taught kepaada students during the learning process. this leads to student learning outcomes that are still unfinished on the subject of Products Cake. The above problem then generated a Learning Cake product module as a learning resource for students of class XI Patiseri.

### 3) Analysis curriculum

This curriculum analysis refers to the syllabus of Cake Product subjects in SMK Negeri 9 Padang, so that the learning that will be produced does not deviate from the learning objectives. The material developed in the Learning Module on the Cake Product Subject is part of the Core Competencies that exist in the Cake Products course syllabus.

### 4) Results of student analysis

Stage of student analysis is phase analyze student character. At this stage, the analyzed students are even semesters who take the subjects Cake Products Program Expertise Patiseri in SMK Negeri 9 as a reference in the development of the module. After the analysis and conducted interviews on the students then the results obtained that the students are still many who understand lessons, especially lessons Cake Products. This is because the reading material is less so the students become less read. In addition, students do less exercises in material understanding.

The achievement of this stage allows the students to study independently and in the use of student learning modules it is better to see and study the module independently rather than just told by the teacher.

## b. Stage design

This stage is a module design in accordance with the design that has been made. The design results consist of:

### 1) The cover page design of Learning Module Product Cake.

The cover page design of the learning module contains the subject of Cake Product module course, author's name, and cake decoration design. The design of the introduction page of the module learning Products Cake.

The design of the introductory page of the Products Cake learning module contains Praise the Almighty God, with His grace to complete the learning module entitled Cake Items. One of the challenges of education, including education in Vocational High School is how to make a competent education in their field, especially graduates in accordance with the development and demands of the world of work.

### 2) The design of the module contents

This module consists of an introduction and four learning activities. On the module introductory page consists of: description, prerequisites, usage instructions, final goals, ability checks and formative tests.

There are subject matter in this module which are: (1) Product of cake, gateaux and torten; (2) cake ingredients; (3) design cake,

and decorate cake. Each learning activity consists of: objectives, material descriptions, summaries, formative tests and answer keys.

c. Development

This development stage consists of; validity test Learning module on Products Cake Subjects by validator assessment, and practicality test according to the assessment of training teachers and students.

The trial data and test results Learning modules on Products Cake Subjects are as follows:

1) Validation module learning

The results of the assessment of each aspect of the indicator given by the validator in the module format can be taken average of the total validation of the learning module that is 0.95 so it can be concluded that the module format goes in the category "Valid". The results of the assessment of each aspect of the indicator given by the validator on the material / content of the module can be taken average of the whole validation of the learning module that is 0.88 so it can be concluded that the contents of the module into the category "Valid".

2) Practice

a. Practice of the teacher

The result of Practical Learning module test on Products Cake subject is known that the average score is 93% with the category Very Practical

b. Practice of the students

Practicality test result Learning Module on Products Cake Subject based on students response is 91%, so it can be concluded that this learning module is very practical.

d. Dessiminate

Dessiminate stage in this research is not done because considering the limitation of time and cost of researcher.

3.2. Discussion

This study produces learning modules for Products Cake subjects. The development of this module is based on preliminary observation of the learning process of Products Cake subjects which aims to know the problems, obstacles, and any phenomena encountered in the field related to learning, then needs analysis, such as curriculum analysis and student analysis. This product Cake Learning module has passed the test phase of validity, practicality and effectiveness. In the validity test is done by seeking expert opinion through validation sheet. The validated aspect of this learning module is the material / content aspect and module format aspect. From the experiments conducted got the result that the whole aspect is very valid value.

Practicality testing is done by asking the teachers and students for opinions through a questionnaire of practicality. From practice test, it is known that Learning cake product module is in very practical category to be used as teaching material.

This Product Cake Learning module was developed using Four-D method through several stages, among others:

a. Define

The defining stage is done to get an overview of conditions in the field. In accordance with the opinion of Trianto (2009: 190) that the defining stage aims to define and define the requirements of learning begins with the analysis of the objectives of the limitations of materials developed device. This step is carried out the following steps:

1) Results observation

Observations made in SMK Negeri 9 Padang On Products Cake subject that is during the learning process of Product Cake does not use the learning module as a source of learning that can be used as a reference by students. Another problem faced by students is the lack of reference resources about the Product Cake lesson book, the lack of availability of learning resources in the form of books for the subject of products cake at SMK Negeri 9 Padang.

2) Result interview

The interview was conducted with two Products Cake subject teachers. The result of interview with Cake Product subject teacher at SMK Negeri 9 Padang that learners can not reach Minimum Exhaustiveness Criteria (KKM) applied in school for Products Cake subject that is 7.5. In addition, in the learning process teachers use learning materials from internet searching taught kepada students during the learning process. this leads to student learning outcomes that are still unfinished on the subject of Products Cake. The above problem then generated a Module Learning Product Cake as a learning resource for students of class XI Patiseri.

3) Results analysis curriculum

This curriculum analysis refers to the syllabus of Products Cake subjects in SMK Negeri 9 Padang so that the learning that will be produced does not deviate from the learning objectives.

4) Analysis student

These characteristics include the background of academic ability (knowledge), cognitive development, as well as individual or social skills that address the chosen topics of learning, media, formatting and language. After doing the analysis and conducted interviews on the students then the results obtained by students are still many who do not understand. This is because the reading material is so bad for students that it can not read. In addition, students lack the exercises in material sessions. This is in line with the opinion of Trianto (2009: 190) which analyzes the students into a study of the various students who fit the design of learning device development.

b. Design

The results of the analysis of the stage of the invention (define) is used for the next stage of the design stage (design). This stage is a module design in accordance with the design that has been made. In accordance opinion Trianto (2009: 191) The planning stage aims to prepare the learning device prorotype The results of the design consists of:

1) The design of the cover page of the cake product learning module.

2) The design of the introduction page of the cake product learning module.

3) The design of the content of the cake product learning module.

c. Develop

This stage aims to get a valid, practical, and effective product learning module. In accordance with the opinion of Trianto (2009: 191) that the development stage aims to produce a revised learning tool based on input from experts. This development stage consists of; validity test of learning module according to validator assessment, practicality test according to teacher subject and student assessment and effectiveness test seen from result of student learning. The process of the development phase of Cake Products learning module is as follows:

1) Validity test

The validation of the learning module is derived from validator responses about the validity of learning modules developed. Validator consists of three lecturers of Faculty of Engineering UNP as validator of learning module format, two lecturers of Faculty of Tourism and Hospitality UNP and one subject teacher of Product Cake as validator of learning module material. The learning module format validator gives an average percentage of 0.95 with valid categories. The material validator gives an average percentage of 0.88 with valid categories. According to Azwar's opinion (2014: 113) the result of aiken calculations ranges from 0 to 1 and the numbers 0.6 can be interpreted to have quite high coefficients.

2) Practicality test

Assessment of the practicality of learning modules derived from a questionnaire filled by teachers / practitioners (subject teachers Product Cake). In accordance with Mudjijo's opinion (1995: 59) "Practicality shows at the level of ease of use and its implementation which includes the cost and time in the implementation and management and interpretation of the results". Practitioners assessed the developed learning modules are in a very practical category with an average percentage of 93%.

In addition to assessments from teachers / practitioners, the practicality of the learning module is also assessed based on student responses through questionnaires and assessment results. Based on the average percentage data of 91% with very practical category.

#### **4. CONCLUSIONS**

Based on the results of research module development has been done, then obtained conclusion as follows the Product Cake learning module was developed using a 4-D development model, the developed Product Cake Learning module is valid and the Products Cake learning module is practically used by teachers and students at school.

#### **REFERENCES**

- Azwar Syaifuddin. 2014. Realibility and Validity. Yogyakarta: Student Literature.
- Ganefri and Hendra Hidayat. 2013. Vocational Education Curriculum Perspective. Padang: Faculty of Engineering
- Mudjijo. 1995. Test Results Learning. Jakarta: Earth Literacy.
- Rusman. 2009. Curriculum Management. Jakarta: PT Raja Grapindo Persada.





Slameto. 1998. Educational Evaluation. Jakarta: Bina Aksara.

Trianto. 2009. Designing Innovative-Progressive Learning Model. Jakarta: Kencana.