

# The Development of Teaching Materials Based on Vocational Skills on an Equality Program

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**Abstract**—This research is based on the reason that subject matter in the equality program has no relevance to daily life. The purpose of this research is to develop teaching materials based on vocational skills and further can be used as a reference in improving the learning process in Equality Program. Teaching materials are developed to meet the learning needs in developing academic potential by taking into account aspects such as cultural background, geographical location, physiological, psychological, level of age and self concept. This research is a development research using 3D model adopted from 4D model that is define, design, and develop. From the results of this study found that the vocational skills-based teaching materials effectively used in the learning process of citizens learning equivalence program that can be used to improve and develop the quality of equality programs.

**Keyword**—*Teaching Materials, Vocational Skills, Equality Program*

## I. INTRODUCTION

The Law of National Education System in Indonesia in Article 26 paragraph 2 states that non-formal education [6] functions to develop the potential of learners with an emphasis on mastery and functional skills as well as the development of professional attitude and personality. It is further described in paragraph 6 that respect for non-formal education is rewarded on a par with formal education after going through a process of appraisal of equivalence by a designated government agency that refers to national standards of education. One of the non-formal education programs that aim to develop the potential of learners is equal education which has three types, among others: Equality Program A, Equality Program B, Equality Program C. All three are part of non-formal education that is intended for dropouts or break-ups in the productive age who want

to improve their knowledge and life skills as well as people who need special services in meeting their life needs as an effort to improve their standard of living, science and technology.

The general finding that in Indonesia the number of dropouts from year to year increases, the total number of drop out rates in the year 2013/2014 reaches 602,526 people from elementary, junior high, high school / vocational schools. While the number of drop out rates in junior high school in East Java Province in the year 2013/2014 reached 13,271 people [3]. The condition is very apprehensive to see that East Java Province that has the potential of fertile and strategic nature that requires superior resources to develop these potentials.

Answering the above needs, becomes an important thing for develop equality programs in the hope of producing qualified graduates. Teaching materials is one component of learning that has a role in improving the quality of learning. In addition, teachers (tutors) of equality programs are required to be able to carry out learning by taking into account the important aspects of the learning community or learners one of which is a good characteristic viewed from aspects of cultural background, geographical location, physiological, psychological, level of age, self-concept etc.

A study of teaching materials [1] concluded that teaching materials in the context of learning is one of the components that must exist, because teaching materials are components that must be studied, studied and studied to achieve the standard of learning achievement. Furthermore, according to Biggs and Teller [2] states that the external conditions that affect the learning process is a teaching material that is prepared or designed by educators in accordance with the problems and learning needs of learners or

citizens of learning. Other research [5] concludes that equality program learning can be integrated with life skills.

From the description above illustrated that the equality program as one of the educational program needs to change in the learning process with vocational-based learning. On the basis of this, the researcher conducts research on the development of teaching materials that is integrating the material on the equality program with vocational skills. With the teaching materials is expected later learners or residents learn will not find it difficult in understanding the material that is integrated with vocational experience in everyday life.

## II. METHODS

This study adopted the model made by Thiagarajan [4], which is called The Four-D Approach. The Four-D approach divides the development process into four stages: define, design, develop, and disseminate. However, in the development of teaching materials in this study only until the third stage of the stage develop.

The define stage is done through five activities. The first activity is to gather information and analyze the problems faced by citizens learning the equality program. The second activity is to analyze the characteristics of citizens learning the equality program. The third activity is to conduct an analysis related to the learning objectives to be achieved. The fourth activity is to analyze the given material, and the fifth activity is to formulate the objectives in a series of competencies covering cognitive, affective, and psychomotor competencies. Design stage is done to create prototype of teaching materials. This stage is done in four stages: compiling the material based on a series of competencies that have been determined at the define stage, choosing instructional media, choosing the learning format and making the learning design. Develop stage is done through expert test and field test. Expert tests are conducted to obtain input from experts related to the prototype of teaching materials that are made. Furthermore, the teaching materials were tested, but in this study the teaching materials are still tested on a small scale that is in some equality program of Jember Regency of East Java Indonesia.

## III. RESULTS AND DISCUSSION

In general, the stages or steps of research development of teaching materials include define, design, development:

### A. Define

Preliminary stage is done by several stages: 1) analysis of learning portrait, 2) analysis of learning

participants, 3) analysis of learning objectives, 4) analysis of learning materials and 5) formulating competence achievement.

In the learning protocol analysis it was found that equality program outcomes often experienced constraints in obtaining learning outcomes. Factors age, memory, level of material and learning opportunities cause residents learn to find difficulties in understanding the material. Research objectives have the characteristics of adults seen from the age of 18-45, seen from biological already puberty, seen psychologically already have self-direction, self-concept and self-esteem, seen physically very productive and even have decreased physical function. These characteristics form the basis for designing vocational skills-based learning. From the results of the identification obtained findings that residents learn to have difficulties so that the need to do the development of teaching materials with the aim to provide innovative learning activities so that citizens learn easily in understanding the subjects. Innovation of teaching materials is made by integrating material with vocational skills. It is expected that with the development of teaching materials of subjects in the equality program, the learners can better understand the material.

### B. Design

The activity at this stage is to design the prototype of teaching materials after determining the set of objectives and constraints faced on the teaching materials to be developed, as follows: a). Prepare learning materials; at this stage the researchers arrange a series of learning materials that will be presented in teaching materials. b). Choosing instructional media; choose suitable media to demonstrate understanding of learning content. This process includes adjustments between task analysis and concepts, learners characteristics, resource materials, and deployment plans with different media. At this stage of choosing the learning media is selected based on the characteristics of the learning community. c) Define learning format; the determination of teaching materials format is developed in accordance with the needs of citizens learning between subjects with vocational type. Next collect the various references related to the material to be summarized in the teaching materials. d) Prepare instructional design; designing teaching materials is as interesting as possible so that people learn to be motivated to read and study so that it becomes a draft.

### C. Develop

The development of vocational skills-based teaching materials on equality programs has the primary goal of developing vocational skills-based teaching materials. In line with the research objectives mentioned in the research problem formulation, the general feasibility of vocational vocal-based teaching materials on equality programs that meet of

validity, practically, and effectiveness. The following will describe the stages of composing the equality program of teaching materials with the integration of vocational skills. There are several research phases that have been implemented. The following are the steps of the activity: a. Compilation of the original draft of the equality program textbook, b. Compilation of drafted equality program teaching books that have been integrated with vocational skills, c. Ask the expert judgment about the feasibility of the substance and its presentation feasibility, d. Make revisions as per expert input.

In general here are the stages or steps of development of teaching materials based on vocational skills: 1) Preparation of initial draft of teaching materials; in the early stages drafted material that will be included in the teaching materials. At this stage the draft that has been made is studied and discussed by the research team before then becomes the whole design that contains the general picture and the main points that will be developed into teaching materials. 2) Preparation of draft teaching materials integrated with vocational skills; after the drafting of the materials materials, the next step integrates the vocational skills into the teaching materials model. The pattern of integration used there are two, namely in an explicit and implicit way. Explicit integration is done by displaying skill elements and juxtaposed with material elements. While the implicit way is the pattern of integration that is done by way of implied, which is done for example with the use of pictures, the names of people and skills, 3) Evaluation of drafts by experts; after the draft of the textbook has been successfully compiled, an assessment by field experts and external education specialists on material feasibility, integration of vocational skills, and how it is presented, 4) Revise according to expert input; the final step is to make a revision in accordance with the advice of experts.

The development of vocational skills based on equality vocational program is based on: 1) a final analysis that is tailored to the data on the fundamental problems faced by tutors and program organizers of equality in the field so as to require alternative strategies of teaching materials development solutions, 2) equality program that has characteristics as an adult that requires special treatment as a basis in the preparation of teaching materials, 3) analysis of learning indicators, in this formula obtained the formulation of learning objectives that can be achieved by the learners through the materials that are developed.

Research on the development of teaching materials based on vocational skills in the equality program obtained there are some findings, among others: 1) Accuracy of Vocational Skills Based Subject Material. Teaching materials were first validated by 2 experts ie experts in the field of study and experts in the field of Outside School Education.

So from the validation results obtained data as follows: the content feasibility component got the score 3.92 with criteria is very valid, the component of the presentation component got score 3.65 with criteria is very valid, the component of the language component got score 3.72 with criteria is very valid and the component component of vocational skills got the score 3.75 with very valid criteria. The results of these assessments indicate that teaching materials developed on the basis of vocational skills deserve to be used as a study guide on equality programs. 2) Practicality of Vocational Skills Based Teaching Material. The practicality of teaching materials based on vocational skills is based on data on the constraints that arise during the use of vocational skills based teaching materials on equality programs. Based on the process at the time of data retrieval through observation techniques showed that no constraints arise during the use of vocational skills based learning materials developed by researchers, learners are seen easily using vocational skills based teaching materials. 3) Effectiveness of Vocational Skills Based Teaching Materials. The effectiveness of instructional materials can be measured by looking at the responses of learners to the use of vocational skills based teaching materials to ease the process of understanding the material to improve learning outcomes. Based on the results of observation and interviews to the learners as the subjects of teaching material trials can be obtained data that the material presentation, easy to understand language order and examples that are integrated with vocational skills, can facilitate in understanding the material. Moreover, the examples presented relate to the livelihood background of the learning community. In the above finding that the use of teaching materials based on vocational skills can facilitate the learning process in the learning activities of equality programs, so that learners have enthusiasm to follow the learning in the equality program.

#### **IV. CONCLUSION**

The development of teaching material based on vocational skills is essential to simplify the learning process so as to improve learning outcomes for equality program. Because teaching material based on vocational skills adapted to the characteristics of citizens so it can facilitate the citizens learn in understanding the material.

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