

Research Article

Development of Entrepreneurship Values in Open and Distance EducationRhini Fatmasari¹, Suropto²^{1,2} Universitas Terbuka, Indonesia

ABSTRACT: Entrepreneurship education in open and distance education is usually taught only through modules. Research on university students shows that this education model cannot provide a good understanding of entrepreneurial values. Students also stated that they did not have any direct experience in entrepreneurial activity. Based on the results of the study, the Economic Education Study Program of the Open University develops a model of education and development of Entrepreneurship Education Course which is called the New Generation of Teaching Materials. Entrepreneurship Education Course aims to have students to possess entrepreneurial values that can be taught back to their students. The materials contained in the Entrepreneurship Education module should be designed so that university students have entrepreneurial values and gain hands-on entrepreneurship concepts. This experience is gained through the activities of the Field Work Practice for two months. Research on the development of education materials for Entrepreneurship Education was conducted with Research and Development mathematics model of the combination between Gall and Borg 1983 and 2007. Research in the first year resulted in (1) Analysis of entrepreneurship education materials on open and distance education; (2) The design of teaching materials based on the input of entrepreneurial experts; and (3) Instructional Strategies of entrepreneurship teaching materials. The teaching materials of entrepreneurship education are delivered through printed materials in the module form. The material in this module is enriched with interactive video and web supplement.

Keywords: Open and Distance Education, Entrepreneurship Values, Research and Development

Introduction

The Course PKOP4206/Entrepreneurship Education provides university students with abilities to teach entrepreneurship concepts for their students, so that the materials in the Module for the Course are designed as providing the university students with understanding of the importance of the concepts of Entrepreneurship Education either at the individual or community scope.

At present, the current of information development is influenced by the trend of the Global Open Movement which is a community's movement which is focused on the collaboration principle to produce high-quality products that may be maximally made use of the the users (Belawati, 2014). The Global Open Movement gives effects on the science acceleration which indirectly greatly influences the modules in the Open University due to the more open of the sources of new information and knowledge that cannot be quickly responded through the writing of teaching materials in the Open University. This is because the modules in the Open University cannot be instantly changed and revised, since on the basis of the existing provision, the modules may be revised once in five years.

In line with the development of science, the materials in the Main Materials Book (MMB) have also been changing substantially so that in the discussions it often happens that the examples or concepts have not been relevant anymore with the present condition. Rapid development of social science, especially those dealing with the development of business and economy, results in the concepts and examples that may

change in a short time. This change gives some consequences to the university students' understanding of the materials of Entrepreneurship Education.

The Module PKOP4206 entrepreneurship Education is one of the printed learning materials. Ellington and Race (1997) explained that a printed learning material is the learning material which is designed with a simple, communicative, and clear language that may involve the university students' thinking process and may evaluate their mastery level in an independent learning process. The Open University Modules are especially designed in a systematic fashion in order to make the students studying them feel some dialogues with their lecturers. Therefore, the modules, especially the Module PKOP 4206 Entrepreneurship Education is written communicatively, and interactively and is oriented into the students' learning interest.

To maintain the materials quality and appropriateness with the development of science and technology, a periodical evaluation is made. This present research was aimed to evaluate the future Modules of the Open University. One of the policies made by the Open University is to evaluate modules that have been used for 5 years, so that the 8th year revised editions of the modules may be used to maintain the quality of the contents of the materials in line with the development of science and technology.

The research results on modules as one of the learning materials in the Open University (Malati, dkk 2014; Farida, 2013; Ernik Yuliana, 2012) that there are still many aspects in the modules of the Open University that should be improved.

The improvement is related to the illustrations, the examples presented, references, contents and exercises. Meanwhile a research on some modules of the Open University in the Study Program of Economics Education showed that from the materials, they were not in line with the development of science, thoughts/praxis in the field of relevant science, technology or arts, many of which still used old references. The materials did not explain a concept/principle completely so that the process of finding differences and/or similarities cannot be presented as discourses. The materials are not presented in a consistent and balanced, logical, coherent and ordered way in terms of the thinking method or paradigm.

While the tasks and tests, contents and context are still textbook in nature, so that creativity, sharpness and insights may not maximally form a competent thinking mindset to the students.

The problem dealing with the Course Entrepreneurship Education is students' low achievement. The data from the Testing Center in the Open University concerning the average results of the students' scores in the final examination in 2014.1, 2014.2, 2015.1 and 2015.2 showed that the students' achievement in Economics education using the scale of 1-100 was low.

Table 1. Average Score of the Final Examination of the Course Entrepreneurship Education for 6 Semesters

Code/ Course	Average Score in Final Examination					
	2014.1	2014.2	2015.1	2015.2	2016.1	2016.2
PKOP4206 Entrepreneurship Education	44.95	43.70	48.10	41.31	39.97	42.62

The average score of the final examination for 6 semesters showed that the scores were low since they cannot reach the Minimum Mastery Criteria, namely the lowest criteria of 75 to declare that a student has reached his/her mastery.

Review of Literature

Distance Learning Higher Education

Open University is one of the educational institution which is a system of combining the concept of open education and the method of distance education. The open education or open learning gives an emphasis on the importance of the system flexibility, especially in eliminating the hindrances of place, time and aspects caused by students' characteristics. According to Bates (2005) "*an essential characteristic of open learning is the removal of barriers to learning*. Meanwhile, distance education or distance learning is a method to attain an open education system. Homberg (1977) in Suparman (2004) defines Distance Education as various forms of studies at all levels that are under supervision of or abruptly being supervised by tutors like in the learning process in the classrooms, but it still gets some benefits, namely it is planned and guided by a tutorial organization. Meanwhile, Moore (1997) explained that the basic concept of Distance Education is the separateness of place and time between students and their lecturers. Wedemeyer (1979) explained that there are two main components of Distance Education namely the separateness between the students and the lecturers and the use of media for communication. Therefore in the context of Distance education the use of media as a tool to convey learning materials is one of the important factors and the implementation should be given a great attention. The implementation of Distance Education is not separated from the institution so that it should be conducted in a systematic and planned way (Dohmen in Atwi Suparman, 2004).

Open education system is a condition where each individual may learn without any restriction. The term "open" refers to openness of university in terms of: 1) students, Open University does not limit the qualification of age, the year of certificates and previous education; 2) place, the teaching-learning activities may be conducted anywhere and are not

limited to classrooms or university; 3) the use of the teaching methods and 4) ideas (Darajat, 2013).

Open and Distance Education gives wide chances and enables flexible learning methods, and provides, comes, and gives knowledge to the students anywhere they live so that it really realize a universal access. Other superiorities, as suggested by Keegan (1986); McLean, Gasperini and Rudgard (2002) are as follows: 1) it is flexible, students may study without being limited by time and place obstacles; 2) it is free for the students to choose expertises they are interested in; (3) it does not bother students' routine tasks; 4) the implementation is more democratic, meaning that it can be followed by men and women either those living in rural or urban area, and (5) it encourages students to be more independent and to more master information technology used in the implementation of the distance education.

Learning Materials in the Distance Education

The learning system in the Open University requires the availability of various kinds of learning materials, either in printed or non-printed form (Eliington and Race, 1997). Even, learning materials in the form of modules are the main learning sources, besides multimedia teaching materials such as audio cassettes, video, web-based programs and computer-based learning. One of the characteristics of learning materials is that it should be presented in such a way that it is more communicative, more pleasing and is more easily learned (Mohamad Yunus and Paulinan Pannen, 2004).

The development of learning materials in the Open University is conducted through a systematic process to assure the level of their validity and reliability. According to Pannen (2003), at least there are five procedures in developing good learning materials: analysis, planning, development, evaluation, and revision. At the design stage, the learning materials are designed in such a way that it will result in high quality learning materials.

Module is the main learning material used by the Open University as the Distance Learning University. It plays an important role as a medium for conveying information on learning between the lecturers and the students through independent learning (Katalog UT, 2016). A module should present quality materials where students may study it independently with the following requirements: (1) modular instruction; (2) self-instruction; (3) self-contained; (4) self-explanatory power; (5) independent learning material; (9) virtual learning; and (10) ICT-based presentation.

Activities in developing a module start from developing the Course Design containing an instructional Analysis and GBPP.

Instructional analysis is a stage of process which is the whole from how the designer describes his/her instruction to determine the main component of the instructional objectives through the goal analysis, and how each step in the goal may be analyzed to identify the subordinate or prerequisite skills (Dick and Carey, 2005). Suparman (1977) stated that the process of an instructional analysis starts from it, the implementation of a goal analysis and it begins after a clear statement from the instructional analysis is obtained.

Research Method

The Research and Development of the New Generation Learning Materials Model in the Open University for the Course PKOP4206 Entrepreneurship Education was conducted in the Open University. The Questionnaires were distributed to and the interviews were made with respondents in 7 (seven) Distance Learning Implementing Units of the Open University (UPBJJ UT) namely Bogor, Padang, Bandung, Pekanbaru, Purwokerto, Semarang and Yogyakarta. Meanwhile interviews with experts in Education Economy were made in Bandung, Jakarta, and Padang.

The Research and Development of the New Generation Learning Materials Model is a model which is the combination of R&D developed by Borg and Gall in 1983 for the micro scale and Borg and Gall in 2007 for the macro scale.

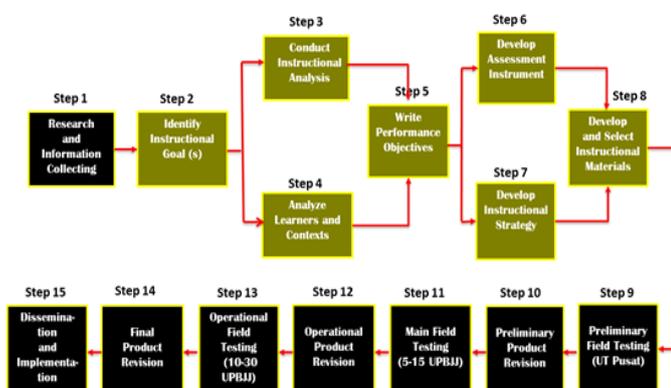


Figure 1. Research and Development Model

The Research and Development of the New Generation Learning Materials Model in the Open University, 2017 (Bahan Pelatihan R&D, 2017). This R&D was conducted for

three years, as planned.

The steps of the research in the first year were as follows:

The first step was to collect information related to the product of learning materials. The information from the respondents, namely the students, was collected using questionnaires. The respondents were asked to complete the questionnaires containing evaluation to the quality of Learning Materials in PKOP4206/Entrepreneurship Education that had been made use of so far. The researchers came to the respondents in UPBJJ UT Padang, Pekanbaru and Purwokerto and interviewed the students on their perception on their teaching materials and the obstacles in using them.

The evaluation of the quality of the teaching materials was also made by experts in the materials from 3 institutions of higher education. The evaluation was made in terms of the quality, the presentation and the completeness of the materials. The experts in the materials involved in this present research were as follows:

1. Dr. Dedi Purwana - UNJ - Expert in Entrepreneurship Education
2. Dr. Gimin, M.Pd - UNRI - Expert in Entrepreneurship Education
3. Prof. Dr. Nirbito - Un Negeri Malang - Expert in Entrepreneurship Education

The evaluation was made using questionnaires. To know better the quality of the teaching materials in the Economy Education and and inputs to develop the materials, in-depth interviews were conducted. The results of the interviews were used as inputs to develop an Instructional Design for the New Generations of teaching materials in the Open University. The results of the process and interviews with the experts on the materials showed that the average score of the evaluation was 2.67 from the scale of 4. It means that there are many aspects to improve. The improvement was focused on the materials and illustrations presented and also the quality and the novelty of the statistical data. The aspect of the teaching materials considered to be still low was those presented in the module and the illustrations in the module and also the general review of the course. Meanwhile the completeness and clarity were good already.

Besides making use of questionnaires, inputs and evaluations from the respondents were also summarized through interviews. From the results of the interviews with the experts, the following inputs were resulted in: (1) the main material to teach was the development of entrepreneurship characters; (2) some materials were not appropriate with the learning indicators; (3) contextual examples and update references should be added; (4) activities of entrepreneurship practice for students should be given to make them get direct experiences in practicing entrepreneurship; (5) a model of evaluation for entrepreneurship practices for three times in the form of Field Work Practices should be established; and (6) students should make and design a simple entrepreneurship concept that may be applied. The result of the evaluation given by the student respondents to the materials was 3.17 from the scale of 4.

The second step was to describe the general competences in the General Instructional Objective to become competences so that logical and systematic competences would be established and all ended in a general instructional objective. The process in determining the General Instructional Objective was done by holding discussions among the lectures in the Study Program of Economy Education and the experts and considering the results of the questionnaires and the interviews with the students. Based on the process, a competence gap was identified between the competence possessed by the students of PEKO as teachers, especially in their understanding of the Entrepreneurship Education. Up to the time, the materials of the Entrepreneurship Education was merely given at the level of the cognitive aspect. The materials presented were theoretical in nature and were far from the conditions experienced by the teachers at school.

In the new learning materials, it is expected that it may change the students' paradigm on the importance of the Entrepreneurship Education and the formation of the entrepreneurship characters, besides giving direct practices of entrepreneurship in the community in the form of Field Work Practices. The General Instructional Objective which expected to be attained by the students after joining in the Course is as follows: "After joining in the Course of the Entrepreneurship Education, the students possess an entrepreneur mindset with innovation and creativity."

The third step was to make an instructional analysis producing

a competence map that is expected to be attained in the learning of Entrepreneurship Education. The result of the instructional analysis was described in the form of the sub-competence map showing the format of the lowest up to the highest competence as formulated in the General Instructional Objective.

In the new generation of the teaching materials of the Entrepreneurship Education, Field Work Practice activity of Entrepreneurship was added. The Field Work Practice was conducted three times. The first Field Work Practice was in the form of observations and internship in small businesses existing in the students' environment so that they understand the types and characteristics of business. The expected output of this activity is a report on the identification, analysis and alternative solutions to problems in the corporation/observation place under the guidance of a supervisor; the second Field Work Practice was a simple entrepreneurship practice (in group/individual) with the objective of bearing ideas of entrepreneurship and of sustainable enterprises. The output of the second Field Work Practice was in the form of bearing new ideas followed by a business perspective and new enterprise practice in groups. The third Field Work Practice was in about the report/feasibility study made with the objective to establish ideas of business that had been applied. The output of the third Field Work Practice was the consistence and relevance of the ideas and the place of internship and the report on the results of internship under the guidance of a supervisor.

The competence achievement of the Course of Entrepreneurship in the New Generation Module is presented in Table 1.

COMPETENCE ACHIEVEMENT OF ENTREPRENEURSHIP MODULE

A. Competence Achievement of the Entrepreneurship Module

General Competence of the Entrepreneurship Model: After joining in the Course of the Entrepreneurship Education, an entrepreneur mindset with innovation and creativity is established."

B. Competence Achievement of each Entrepreneurship Module

The Entrepreneurship Module is established through the competence achievement of each module and entrepreneurship practice.

1. Competence Achievement of Module 1 consists of:

- Subjects: 1. Concepts and Characteristics of Entrepreneurship
2. Establishment of Entrepreneurship Attitude
3. Creative Thinking

Competence Achievements of Module 1 are as follows:

- (1) Establishment of knowledge of the concepts, characteristic, and principles of entrepreneurship
- (2) Establishment of pious attitude and moral of entrepreneurship
- (3) Establishment of creative and innovative thinking dealing with entrepreneurship

2. Competence Achievement of Practice 1: Observation of small Business in students' environment

Competence Achievement of Practice 1 is as follows:

Being able to observe and analyze of the condition of the Small and Medium Enterprises as a prospective business opportunity persistently and honestly.

3. Competence Achievements of Module 3 include: Subjects

- Subjects
1: Identification of business
2: Management of Small business
3: Ethics in business+

Competence Achievements of Module 2 are as follows:

- a) Creation of ideas of business opportunities and/or development of business in one's environment using the SWOT analysis
- b) Establishment of knowledge, skills in the application of democratic management applications in small and medium enterprises
- c) Establishment of knowledge and skills in a hospitable business ethics in small and medium enterprises

4. Competence Achievement of Practice 2: Being able to identify prospective business opportunities in one's environment
5. Competence Achievements of Module 3 are as follows:
 - Subjects
 - 1: Calculation of Simple Production cost
 - 2: Business Marketing
 - 3: Simple Accounting
 - Competence Achievements of Module3 are as follows:
 - 1) Capability in calculating a simple production cost
 - 2) Establishment of ability and skill in marketing products ethically, persistently and resiliently.
 - 3) Establishment of ability in simple accounting for small and medium enterprises
6. Competence Achievement of Practice 3: Internship
 - Competence Achievement of Practice 3 is as follows:

Being able to apply the knowledge and skills of entrepreneurship persistently, resiliently, and honestly through internship activities

The fourth step was to analyze the learners and the+ contexts. The analysis of learners produced descriptions of the students' characteristics dealing with their learning ability as the students of the Open University. The analysis of contexts described the availability of learning facilities and infrastructures for the students if they are related to ideal needs to join in the learning process in the Open University serving as the consideration in making considerations of the entering behavior line. Based on the analysis of the Entering Behavior, it was determined that to take the Course PKOP4206/Entrepreneurship Education, S1 students of PEKO should not fulfill prerequisites of certain courses, since the materials explained in the module did not refer to one certain skill.

The fifth step was to write the performance or learning objectives especially those which are expected to be attained by the students at the end of the learning activities. Basically, the list of the performance objectives were obtained from each sub-competence stated in the end results of the learning activities. The list contained the performance, the specific and basic competences. On the basis of the instructional analysis, specific learning objectives serving as the expectation/pictures of the students' behaviors after the learning activities were formulized. In the development, Such specific learning objectives are the changes of behaviors and knowledge of the learning materials.

The development of the specific instructional objectives contained elements that could be able to give clues in making an assessment test so that the behaviors in the test could be assessed. The development of the specific instructional objectives was made by paying attention to the ABCD elements where A= Audience, B= Behavior, C= Condition and D= Degree (Atwi, 2014)

The sixth step was to develop an assessment instrument to measure the students' learning results. This instrument should be valid, measuring the intended competence in the learning objectives, reliable, having good consistence of the measurement results, and practical, being efficient in its use. The instrument of learning measurement results is developed based on the the Specific Instructional Objectives developed before. Then the testing grids (blue print) was developed. The Course of Entrepreneurship Education more measured the instructional objectives at the cognitive and applicative levels

in the form of simple practice. The measurement of the learning results of the cognitive aspect was administrated in the forms of objective tests and essay. The assessment instrument of the Learning Results developed was 139 items, consisting of multiple choice type of 101 items (72.66%) and Essay type of 38 items (27.34%). The test grid was developed by referring to the Specific Competences developed before.

The seventh step was to develop an instructional strategy of the Course of Entrepreneurship Education which is in line with the instructional objectives of the course. Each instructional strategy was focused on the attainment of one instructional objective or a group of instructional objectives.

Instructional strategy deals with the approach to managing the instructional content and process comprehensively to attain one instructional objective or a group of instructional objectives. The stages of instructional activities make included (1) pre-instructional activities, consisting of attracting attention, explaining instructional objectives, explaining and reminding prerequisite skills; (2) content presentation, consisting of activities of explaining the content and giving learning guidance; (3) learning participation activities, consisting of exercises and feedback; (4) assessment activities, consisting of preliminary skill test, preliminary test and final test; and (5) follow-through activities, consisting of giving assistance to recall the materials that had been learned and the considerations of the possibility of their application of the instructional contents and the competence that had been attained in life or relevant fields.

In the instructional strategy, various components consisting of the orders of learning activities, the outline of the content, method, media and instrument, and learning time (in minutes) were included (Atwi, 2014).

The eight step was to developed and select instructional materials. Instructional strategy is a blue print of the instructional materials developed. Even, the instructional materials were chosen from those existing in the field (such as modules in the Open University that had been existing so far and those from various sources). The materials could be used completely, modified or enriched to adapt to the instructional strategy. The form of the new instructional materials were adjusted to the instructional approach adopted, for examples, fully online learning, blended learning, or printed-based learning. The instructional materials produced were called a preliminary form of product or preliminary draft consisting of the main instructional materials, the tutor guideline

(online/face-to-face), students' learning guideline, and the learning management guideline for the Central Open University and the Implementing Units of the Open University (UPBJJ)

Conclusion

The evaluation of the Entrepreneurship Education module made by the experts of materials showed that some parts of the module, namely those dealing with the materials and the presentations to the students should be revised, since there are still some materials that still used the old data and the materials presented did not give many concrete examples. Moreover, it is also necessary to add assignment either individually or in groups in the form of Field Work Practice. Field Work Practice is one additional material which is very important in the revised module

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