

The Development of Contextual Based Instructional Material in Entrepreneurship for Students of Class X SMK BM Apipsu Medan

Khoirun Nikmah

Department of Education Technology, Postgraduate Program, State University of Medan, Medan, Indonesia

Abstract

This study aims to: (1) develop contextual based instructional material in entrepreneurship for students, (2) use contextual based instructional material in entrepreneurship in effective instruction which is used by students. The type of this research is the research and development that used the product development model of Borg and Gall and combined with instructional design model of Dick and Carey. The research method consists of seven steps as follows: (1) need assessment, (2) to develop the initial product, (3) the expert validation and revision, (4) individual trial, (5) small group trial, (6) a limited field trial, and (7) final product. The result of this research showed: (1) the test of subject matter experts is at the excellent qualification (88,23%), (2) the test of the instructional design experts is at the excellent qualification (82,89%), (3) the test of the instructional media experts is at the excellent qualification (83,55), (4) the individual trial is at the excellent qualification (92,94%), (5) the small groups trial is at the excellent qualification (95,72%), and (6) the limited field trial is at the excellent qualification (95,10%). Thus, the development of contextual based instructional material is effective to be used in entrepreneurship instruction.

Keywords: development, instructional material in entrepreneurship, contextualbased

1. Introduction

A qualified man is the one who can follow the development of era and technology. These developments give a good impact to the educational world. Because education is the main factor in shaping students' character, so they can develop the potency and skill they have.

Education is a conscious and systematic effort which is done by responsible people to persuade students, so they have characters and customs which are appropriate to the purpose of education. According to Daryanto (2012:1) education is the maturation of students in order to be able to develop their talent, potency, and skill in running this life. The statement is appropriate to the purpose of education in Vocational High Schools in Indonesia. The purpose is to "improve the intelligence, knowledge, personality, noble character and skill to live independently and follow the advanced education based on their major" (Permendiknas No. 22, 2006).

Based on the reachable purpose through the vocational education, it is expected that the alumnus of Vocational High School are prepared to enter the occupation world, which is structured in industry, and also in informal sector which needs the independence in working (PP No. 29, 1990). Therefore, the curriculum of Vocational High School emphasizes in giving the supply of appropriate skill and oriented to the need of demand driven.

To make it come true, since 2006 through the School Based Curriculum (KTSP), teachers are given a freedom to design an instruction, either from the subject matter, method, media, evaluation system or strategy and instructional model which are appropriate to the development of industry and business.

Through KTSP, SMK BM APIPSU of Medan as an educational institute has tried to increase the quality of education at school through the improvement of instructional process, the increasing of teachers' competence, activate the MGMP (The Meeting of Teachers), cooperate with industry and the reparation of media and infrastructure. Many concepts and new insights about instruction at school always appear and developed as fast as the development of science and technology. Teachers, as the educators have such an important position in developing the human resources, and they are expected to keep following the development of the new concepts in instruction in order to make the students' assessment be more optimal.

However, there are still many obstacles in the field to follow the concept and new insight about the instruction. Based on the result of observation in SMK BM APIPSU Medan, the less success of instruction in entrepreneurship is caused by the low mastery of entrepreneurship itself. It is caused by the instructional material used by the teachers is the students' working sheet which is provided by the school. Therefore, the teachers didn't use to create or design the instructional material by themselves. Beside that, there are still some things which cause the students' low mark, they are: (1) it is hard to understand and apply the matter in their daily life, (2) the matter in the text book used by them doesn't provide clear examples and illustrations to them, (3) the text book used by the students is not interesting so it makes students not interested in learning the matter, and (4) the books used by them are not adequate to support the mastery of the matter and the implementations in entrepreneurship.

The text book about entrepreneurship which is used today is not managed well yet, because it likely focuses on the structure of students' cognitive. Having been found in the entrepreneurship book discusses about the matter

of entrepreneurship only without focusing on the surrounding, and it is also boring because there are so many theories without the implementation.

Whereas, entrepreneurship is a compulsory subject in vocational high school based on the aim of the school, that is to prepare the alumnus who can compete in the society and by learning the entrepreneurship, the alumnus of vocational high school are not only the job hunters, but also they can be job creator by being entrepreneurs (Frank, 2005).

According to Sari (2010), entrepreneurship is one of subjects which is learnt in vocational high school and becomes a place to increase the knowledge, understanding, attitude and values in it.

It needs contextual based instructional material in entrepreneurship to solve the problem. According to Dick and Carey (2005:241), instructional material is a package of matters or teaching materials which are managed systematically, shows the competences which are going to be reached by the students in the instruction. In addition, Panen (2001) said that instructional material is the materials or subject matters which are managed systematically, and used by the teachers and students in the instruction. So, it can be concluded that instructional material is a package of subject matters like media or software which are managed logically and systematically to make teachers and students be easy in reaching the standard competence.

In creating instructional material, there are some things to be watched, they are: the rules in creating instructional material, the components of instructional material, the principles in creating instructional material, and the role of instructional material in instruction. According to Widodo and Jasmadi (2008:42), the rules in creating instructional material are: (1) the instructional material should be appropriate to the students in the teaching and learning process, (2) the instructional material should be able to change the students' behavior, (3) the instructional material which has been developed should be appropriate to the students' need and characteristic, (4) the instructional material includes the aim of specific instructional activity, (5) to support an achievement, the instructional material should contain of detailed subject matter, and it is proper for an activity and exercise, (6) there is an evaluation as the feed back or as an instrument to measure students' ability. Beside the rules, the components of instructional material must also be watched, they are: introduction, learning activity, exercise, signs of answers in the exercise, summary, formative test, and the answer key of formative test (Sungkono, dkk, 2003). And according to Sudrajat (2008:1), the principles in creating instructional material are: (a) relevancy principle, (b) consistency, and (c) sufficiency.

Instructional material also has an important position in instruction as the representative of teacher's explanation in the classroom. According to Prastowo (2011:24-25), it is classified into: (1) for the teachers, it saves the time, changes the teachers' role to be facilitators, activates the instruction as a guidance and evaluation instrument, (2) for the students, it can be used anytime and anywhere, to learn based on the rapidity, to delve students' potential, and a guidance to direct the activity in instruction, (3) for the instructional strategy, it can be used as classical, individual and group instruction.

According to Milfayetty, et.all (2011:84), contextual teaching and learning is a concept which relates the subject matter to the students' situation and encourage students to make connection among the knowledge they have by involving the seven main components of contextual teaching and learning, as follows: constructivism, asking, inquiry, learning society, modeling and authentic evaluation. In addition, Sagala (2005:87) said that contextual teaching and learning (CTL) model is a learning concept that helps teachers to relate the subject matter being taught to the students' real situation and encourage students to make connection between the knowledge they have with its implementation in their life as a family member and society. So, in conclusion, contextual is to relate the subject matter they learned to their real life. In addition, Hudson dan Whisler (2006:58) said that contextual teaching and learning is to help teachers to relate the content of the subject matter to the real life, situation, and to motivate students to make connection between the knowledge and its implementation into their life as a family member, citizen, worker, and involved in working hard which is needed in instruction.

By developing the contextual based instructional material, students can be directed to explain a real phenomenon and solve the problems in their daily life by being supplied the concept mastery which they built by themselves through a subject matter which is related to the environment. For example in a subject matter of identifying the attitude and behavior in entrepreneurship in which students are expected to be able to identify the attitude and behavior of an entrepreneur, the factors which affect the success, the failure of an entrepreneur and the skill he should have, and how the entrepreneur respond the problems in his business by observing his environment, not only the students are demanded to understand the subject matter, but also to implement it and relate it to the environment.

The focus of the problem in this research and development: "is the contextual based instructional material in entrepreneurship proper to be used by the ten graders students of AP SMK BM APIPSU Medan?"

2. Method

This research was held in SMK BM APIPSU Medan, at Jl. Jambi No. 25 Medan, in the class of X AP and X AK, in the entrepreneurship subject, at a standard competence about actualizing attitude and behavior in

entrepreneurship. This research and development referred to the steps of research and development of Borg and Gall model, and the development of instructional material used Dick and Carey model. The steps of research and development in Borg and Gall model are: (1) the phase of need assessment, (2) the phase of designing the instructional material, and (3) the phase of trial (validation). In the phase of analysis, the activity that was done is analyzing some aspects of instruction which should be achieved based on the standard competence. The analysis of the aspects consists of three phases: to do a study, introduction, and to identify the needs in analyzing the instruction.

The instructional material which would be developed is for the tenth graders of Vocational High School in the odd semester by using KTSP with a standard competence about actualizing the attitude and behavior in entrepreneurship. Students are expected to be able to identify and implement the attitude and behavior in entrepreneurship in their life.

The phases of design trial in developing the instructional material in this research are:

- a. The validation of subject matter expert,
- b. The validation of instructional design expert,
- c. The validation of instructional media expert,
- d. The revision of development (phase I), based on the assessment of ideas, critics or suggestions from the three experts, the matter of design and media,
- e. Individual trial from three students (one by one trial),
- f. The trial of nine students (small group trial),
- g. The revision of phase II, based on the assessment of ideas, critics or suggestions from the individual and small group trial.
- h. The field trial toward 24 students of X AP 1 class about the assessment in interest and expediency of the product,
- i. Revision phase III, based on the assessment of ideas, critics or suggestions from the field trial.
- j. The revision of final product for finishing, and continued by the test of product effectiveness in learning and teaching process.

The trials in this research were done by spreading the assessment questionnaire. The questionnaires were given to the students to know about their assessment toward the instructional material which has been developed. The assessment questionnaires were made in the scale of 1 to 4 with the criteria as follows:

- 1) 1 = if it is excellent/ very appropriate/ very complete/ very adequate
- 2) 2 = if it is good/ appropriate/ complete/ adequate
- 3) 3 = if it is less good/ less appropriate/ less complete/ less adequate
- 4) 4 = if it is not good/ not appropriate/ not complete/ not adequate

The criteria of validation assessment from the subject matter expert used scale of Likert which was analyzed in descriptive percentage by using the formula as follow:

$$X = \frac{R}{N} \times 100\%$$

Where:

X = the expected value

R = the total score from the items or the correct score

N = the maximum score from the test

According to Arikunto (1998:246) the criteria of assessment percentage score is shown in this following table:

Table 1. The Criteria of Instructional Material Assessment

No	Criteria	Score Interval
1	Excellent	$75\% \leq X \leq 100\%$
2	Good	$55\% \leq X < 75\%$
3	Less good	$40\% \leq X < 55\%$
4	Not good	$X < 40\%$

3. Result and Discussion

The result of validation in assessment score toward the components of contextual based instructional material in entrepreneurship at the quality of instruction can be seen in this following table 2.

Table 2.The Assessment Score of Subject Matter Expert

No	Aspect	Respondent		Total Score	Average	Criteria
		1	2			
1	The aspect of content expediency	21	21	42	87,50%	Excellent
2	The aspect of presenting expediency	21	22	43	89,58%	Excellent
3	The aspect of language	11	11	22	91,66%	Excellent
4	The aspect of graph	6	7	22	91,66%	Excellent
The Total Average				120	88,23%	Excellent

The result of validation was in the score of components of contextual based instructional material in entrepreneurship. According to the instructional design expert, the quality of instructional material which has been developed is good and it can be tried.

Table 3.The Assessment Score of Instructional Design Expert

No	Aspect	Respondent		Total Score	Average	Criteria
		1	2			
1	The aspect of content expediency	13	15	28	87,50%	Excellent
2	The aspect of presenting expediency	29	34	63	78,75%	Excellent
3	The aspect of graph	16	19	35	87,50%	Excellent
The Total Average				126	82,89%	Excellent

The validation of instructional media expert was done by two instructional media experts. They validated the product of the aspects in instructional media, such as in the aspect of content expediency, presenting expediency, and graph. The result of the validation was in the assessment score of the components of contextual based instructional material in entrepreneurship.

Table 4.The Assessment Score of Instructional Media Expert

No	Aspect	Respondent		Total Score	Average	Criteria
		1	2			
1	The aspect of content expediency	11	11	22	91,60%	Excellent
2	The aspect of presenting expediency	34	34	68	85,00%	Excellent
3	The aspect of graph	18	19	37	77,08%	Excellent
The Total Average				127	83,55%	Excellent

The assessment and ideas in this trial were about the presenting of instructional product, such as the content expediency, presenting expediency, language expediency, and the choosing of pictures.

Table 5.The Data of Questionnaire Result in Individual Trial

No	Aspect	Respondent			Total Score	Average	Criteria
		1	2	3			
1	The aspect of content expediency	18	18	20	56	93,33%	Excellent
2	The aspect of presenting expediency	15	13	14	42	87,50%	Excellent
3	The aspect of language	8	8	7	23	95,83%	Excellent
4	The aspect of graph	8	8	8	24	100%	Excellent
The Total Average				120	92,94%	Excellent	

This small group trial was used as an early experience before the product was tried in the field. The data of this small group trial can be seen in this following table.

Table 6.The Data of Questionnaire Result in Small Group Trial

No	Indicator/ Statement	Score				Average	Criteria
		1	2	3	4		
I. THE ASPECT OF CONTENT EXPEDIENCY		170				94,44%	Excellent
1.	The matter suitability			1	8	97,22%	Excellent
2.	The guidance clarity in instruction				9	100%	Excellent
3.	The easiness in understanding the sentences in the text			4	5	83,33%	Excellent
4.	The accuracy of matter structure			2	7	91,66%	Excellent
5.	The involvement and role of students in the learning activity			3	6	91,66%	Excellent
II. THE ASPECT OF PRESENTING EXPEDIENCY		141				97,91%	Excellent
6.	The quality of picture				9	100%	Excellent
7.	The composition of colour				9	83,33%	Excellent
8.	The interest of the story			1	8	75,00%	Excellent
9.	The quality of exercises			2	7	91,66%	Excellent
III. THE ASPECT OF LANGUAGE		68				95,44%	Excellent
10.	The easiness in understanding the language			2	7	91,66%	Excellent
11.	The easiness in understanding the instruction			2	7	100%	Excellent
IV. THE ASPECT OF CHOOSING THE PICTURES		69				95,83%	Excellent
12.	The Appearance				9	100%	Excellent
13.	The Illustration			3	6	100%	Excellent
The Total Average				448	95,72%	Excellent	

The field trial gave the data which would measure the expediency of the developed product and also to know the advantage of the product for the users. The result of field trial evaluation can be seen in this following table.

Table 7. The Data of Questionnaire Result in Limited Field Trial

No	Indicator/ Statement	Respondent				Average	Criteria
		1	2	3	4		
I. THE ASPECT OF CONTENT EXPEDIENCY		452				94,16%	Excellent
1.	The matter suitability			4	20	97,22%	Excellent
2.	The guidance clarity in instruction			6	18	100%	Excellent
3.	The easiness in understanding the sentences in the text			10	14	83,33%	Excellent
4.	The accuracy of matter structure			2	22	91,66%	Excellent
5.	The involvement and role of students in the learning activity			6	18	91,66%	Excellent
II. THE ASPECT OF PRESENTING EXPEDIENCY		361				94,01%	Excellent
6.	The quality of picture			2	22	100%	Excellent
7.	The composition of colour			1	23	83,33%	Excellent
8.	The interest of the story			18	6	75,00%	Excellent
9.	The quality of exercises			2	22	91,66%	Excellent
III. THE ASPECT OF LANGUAGE		186				96,87%	Excellent
10.	The easiness in understanding the language			4	20	91,66%	Excellent
11.	The easiness in understanding the instruction			2	22	100%	Excellent
IV. THE ASPECT OF CHOOSING THE PICTURES		188				97,91%	Excellent
12.	Appearance				24	100%	Excellent
13.	The Illustration			4	20	100%	Excellent
The Total Average		1187				95,10%	Excellent

The summary result of total score percentage from the result of the experts' validation and the trial of instructional material can be seen in this following table.

Table 8. The Total Score Percentage of The Assessment Result of The Experts' Validation and The Trial of Instructional Material

No	Respondent	The Average Percentage	Criteria
1	The subject matter expert	88,23%	Excellent
2	The instructional design expert	82,89%	Excellent
3	The instructional media expert	83,55%	Excellent
4	The individual trial	92,94%	Excellent
5	The small group trial	95,72%	Excellent
6	The limited field trial	95,10%	Excellent
Average		89,73%	Excellent

4. Discussion

The product of the development of contextual based instructional material in entrepreneurship is a subject matter which has been developed by watching the aspects of instruction. This research and development is directed to produce a product of contextual based instructional material in entrepreneurship for students to improve the instructional process or students' competence. Therefore, the process of this research was done and started by, (1) studying the introduction, (2) designing the instructional media, (3) validating the product, revising and finishing it based on the data analysis of subject matter expert, and (4) instructional design expert and continued by individual trial, small group trial, and limited field trial, so it produced an instructional material which is proper to be used based on the characteristics of the subject and students as the users.

The aspects which are revised and finished based on the data analysis, trial, and ideas from subject matter expert, instructional design expert, instructional media expert and also students as the users of the instructional material, have a purpose to dig some common aspects in developing a product. The variables of instructional material have an excellent average.

5. Conclusion

Based on the formulation, purpose, result and discussion in this research and development of contextual based instructional material in entrepreneurship which have been written in the previous parts, so it can be concluded that the instructional material of entrepreneurship is proper to be used. This expediency was gotten from the assessment result of the experts' validation and trial. The assessment results are as follow:

1. The validation result of the subject matter expert toward the contextual based instructional material in entrepreneurship which has been developed showed that: (1) the quality of the aspect in content expediency

- got a score of 87,50%, (2) the quality of the aspect in presenting expediency got a score of 89,58%, (3) the quality of the aspect in language got a score of 91,66%, and (4) the quality of the aspect in graph got a score of 91,66%. Therefore the total score percentage of the subject matter expert's assessment toward the contextual based instructional material in entrepreneurship was 88,23% and it belongs to the category of "excellent".
2. The validation result of the instructional design expert toward the contextual based instructional material in entrepreneurship which has been developed showed that: (1) the quality of the aspect in content expediency got a score of 87,50%, (2) the quality of the aspect in presenting expediency got a score of 78,75%, and (3) the quality of the aspect in graph got a score of 87,50%. Therefore the total score percentage of the instructional design expert's assessment toward the contextual based instructional material in entrepreneurship was 82,89% and it belongs to the category of "excellent".
 3. The validation result of the instructional media expert toward the contextual based instructional material in entrepreneurship which has been developed showed that: (1) the quality of the aspect in content expediency got a score of 91,60%, (2) the quality of the aspect in presenting expediency got a score of 85,00%, and (3) the quality of the aspect in graph got a score of 77,08%. Therefore the total score percentage of the instructional media expert's assessment toward the contextual based instructional material in entrepreneurship was 83,55% and it belongs to the category of "excellent".
 4. Based on the students' opinion in individual trial, it showed that the instructional material was in the category of "excellent" with the average percentage of 92,94% in which the aspect of content expediency got a percentage of 93,33%, the presenting expediency got a percentage of 87,50%, the language expediency got a percentage of 95,83%, and the choosing of picture got a percentage of 100%.
 5. Based on the students' opinion in small group trial, it showed that the instructional material was in the category of "excellent" with the average percentage of 95,72% in which the aspect of content expediency got a percentage of 94,44%, the presenting expediency got a percentage of 97,91%, the language expediency got a percentage of 95,44%, and the choosing of picture got a percentage of 95,83%.
 6. Based on the students' opinion in limited field trial, it showed that the instructional material was in the category of "excellent" with the average percentage of 92,94% in which the aspect of content expediency got a percentage of 94,16%, the presenting expediency got a percentage of 94,01%, the language expediency got a percentage of 96,87%, and the choosing of picture got a percentage of 97,91%.

References

- Anonim. 2000. *Peraturan Pemerintah Nomor 29 Tahun 1990 Tentang Pendidikan Menengah*. Jakarta. Depdiknas.
- Daryanto. 2010. *Evaluasi Pendidikan*. Jakarta. Rineka Cipta.
- Dick, Walter, Lou Carey, and James O Carey. 2005. *The Systematic Design of Instruction 6 ed*, Boston. Pearson.
- Depdiknas. 2006. *Permendiknas No. 22 Tahun 2006 Tantang Standar Isi*. Jakarta. Depdiknas.
- Farnk, Andrea I. 2005. "Developing Entrepreneurship Skills in the Context of Higher Education". *Journal International Developing Entrepreneurship Skills*.
- Hudson and Whisler. 2016. "Contextual Teaching and Learning for Practitioners". *Systemics, Cybernetics And Informatics* Volume 6 Number 4 ISSN: 1690-4524.
- Milfayetti, Sri, et.all. 2012. *Psikologi Pendidikan*. Medan. Penerbit Universitas Negeri Medan
- Pannen, P. Purwanto. 2001. *Penulisan Bahan Ajar*. Jakarta: Dirjen Dikti Depdiknas
- Prastowo, Andi. 2011. *Metode Penelitian Kualitatif dalam Perspektif Rancangan Penelitian*. Jogjakarta: Ar-Ruzz Media.
- Sagala, Saiful. 2005. *Konsep dan Makna Pembelajaran*. Bandung. CV. Alfabeta.
- Sari. 2010. *Hubungan Hasil Belajar Kewirausahaan Dengan Motivasi Berwiraswasta Siswa di SMK Dua Mei Ciputat*. Skripsi Program Strata Satu (SI) Fakultas Ilmu Tarbiyah dan Keguruan Universitas Islam Negeri Syarif Hidayatullah Jakarta.
- Sudrajat, Akhmad. 2008. *Pengertian Pendekatan, Strategi, Metode, Teknik dan Model Pembelajaran*. Bandung : Sinar Baru Algensindo.
- Sungkono, et.all. 2003. *Pengembangan Bahan Ajar*. Yogyakarta. FIP UNY.
- Widodo, C. and Jasmadi. 2008. *Buku Panduan Menyusun Bahan Ajar*. Jakarta : PT Elex Media Komputindo.