DEVELOPING ENGLISH TEACHING MATERIAL FOR MIDWIFERY STUDENTS

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Abstract. Teaching material is one of the important components in the process of teaching and learning. Its appropriateness is an absolute demand to achieve the success in obtaining the maximum input of knowledge. In terms of learning language, the teaching material used must be contextualized with the learners’ needs in order to trigger students’ productivity in using language. The instructional design models used in this study were adopted from of Dick and Carey’s (2005) as well as Borg and Gall’s (1983) models involving 10 steps of material development, which were simplified into 8 steps: (1) needs analysis and proof of concept, (2) product planning and design, (3) prototype development, (4) expert Validation, (5) preliminary field test/tryout 1, (6) Product revision, (7) main field test/tryout 2, and (8) Revision of final product and product development.

The result of English Teaching Material for midwifery has been specifically set as follows: Snapshot, Conversation in Context, Grammar Focus, Word Power, and Video Viewing. The topics in every unit are chronologically set based on the procedure of midwife work and the activity in every sub-unit is oriented for speaking preceded by various activities which apply CLIL approach and are supported by some learning theories such as behaviorism, constructivism, modeling, questioning, and exercising. Hence, the final teaching material is regarded as good enough, for this teaching material has filled the existing gap of English speaking learning needs to assist the midwifery students who are prepared to work at international maternity clinics and hospitals in local or foreign countries.

Key words: Teaching Material Development, Oral Communication, Dick and Carry Instructional Design, Content and Language Integrated Learning (CLIL)

1. INTRODUCTION

Teaching materials as the important components in a language teaching serve as a medium for the teachers to present the course to the students. Obviously teaching materials should be appropriately designed to meet the needs for successful teaching and learning process. When such materials are contextualized (Nunan, 1988:1-20), they are likely to trigger favorable classroom interactions and encourage the learners to be active in practicing their language (Hall: 1995). In addition, teaching material should also consider the form and the language function (Demetrion, 2001:5). Moreover, contextualizing teaching material has to be done by following the right procedures of material development.

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Strevens (1988) makes four criteria for ESP teaching material principles: ESP material must be (1) related to or designed for specific disciplines, (2) designed to be used in specific teaching situations, a different methodology from that of General English; (3) designed for adult learners, either at Tertiary level institution or at professional work situations, and (4) generally designed for intermediate or advanced students. As ESP teaching material has specific requirements to fulfill the learning needs, its provision must be designed systematically.

The systematical design of this teaching material is done through research and development by designing English teaching materials for midwifery students entitled English Oral Communication for Midwifery Students. English and the midwifery subject are inseparable, as both learning of the content and the language must be integrated. Content and Language Integrated Learning (CLIL) is the most appropriate approach to be applied. CLIL refers to situations where subjects or parts of subjects are taught through a foreign language with dual-focused aims, namely the learning of content, and the simultaneous learning of a foreign language (Mars, 2010).

The need of designing of English Oral Communication for Midwifery Students is to assist the Indonesian midwifery students to master English in order to be able to work abroad. It is done since the number of midwife graduate in Indonesia experienced overload and the provided midwife job opportunities are imbalanced with the number of midwife graduates.

Indonesian population in 2012 was 250 million people. The ideal number of midwife need should be 1 midwife for 1000 people (Koesno, 2015). The midwives to be distributed to all over Indonesia reached 250,000. Based on Indonesian Midwife Association record, the number of midwife graduates reached 29,000 every year. In 2015, the total number of midwife graduates attained 337,000 while the number of Indonesian population reached 255 million people, Board of Indonesian Statistic Centre (2015). From the comparison between midwifery graduates and the midwife need, in 2015 Indonesia experienced overload of midwife graduates.

In contrast, the job opportunities in other countries such as European and United States were widely opened until 2016 and the needs for the employees could reach a million. World Health Organization (2015) stated there were approximately 6 million nurses and midwives in the WHO European Region. That number was not adequate to meet the current and projected future needs. Furthermore, statistics show that the number of young people choosing a nursing or midwifery career was decreasing, Bulletin of the World Health Organization (2015).

In response to the facts above, colleges with midwifery departments in Indonesia need to improve the quality of the student’s English proficiency to compete in the global markets. In this respect, English teaching and learning process should focus on improving speaking skill under the core of English for Specific Purpose (ESP) and English for Occupational Purpose (EOP).

To support further development of English Oral Communication for Midwifery Students, the researchers conducted a preliminary study in two colleges in each Java, Indonesia called Maharani College of Health Science and dr. Soeproeven Health Polytechnic. The preliminary study involved some related people such as students of midwifery, midwifery student alumni, Obstetricians and Gynecologists and midwifery English lecturers to fill the questionnaires.
1.1 The result of preliminary study

The questionnaires were distributed to 73 midwifery students in two different campuses. The answers of midwifery students for question 1 show that it is important to improve their speaking ability (80.8% said very important and 19.17% said important). The answers for question 2 show that most (79.5%) said they had uninteresting English teaching materials. The answers for question 3 show that the teaching material needs improvement, (79.5% said improvement is really needed and 20.5% said it is needed). The answers for question 4 show that most (75%) of the students said teaching material needs to focus on the capability of speaking. The answers for question 5 about the speaking activities show that 54.8% of students liked role-play speaking model, 26.0% liked discussion model while 19.2% liked memorizing dialogue model. The answers for question 6 show that all of them were interested in mastering speaking.

The answers to question 1 from 55 alumni of midwifery department working in 4 different hospitals show that most of them (89%) handled foreign patients. From the answers to question 2 it is found that English learned in campus can support their job. From the answers to question 3 it is found that reading must be taught dominantly. For question 4 different answers were found; 33.3% learnt reading in campus, 13.3% learnt speaking, 53.3% learnt grammar and vocabulary and nobody said that they learnt listening. From the answers to question 5 it was found that English in midwifery department needs to be matched with their occupation.

From the obstetricians and gynecologists selected as the respondents several answers were found; (1) the mastery of English oral communication is needed by midwives to help their job every day, (2) the mastery of English helps them practice independently, (3) active use of English could help their job maximally, (4) sometimes their midwives had foreign patients speaking English, (5) most midwives are not really capable of handling the foreigner patients speaking English.

From five lecturers involved in answering the questionnaire it is found that (1) 80% of the lecturers said the existing material was not good enough, (2) the objectives of the available material to achieve the language skills was not clear, (3) the available material did not have a good topic order and discussion in every unit, (4) the students find it difficult to understand the available material, (5) the teaching material which is focused more on specific language skill such as speaking is needed, (6) the material that focuses on speaking skill could make the students learn well and useful for their future.

The findings from the needs analysis were used as the basis to develop this material as the teaching English sources with contextual situation especially for the students of midwifery prepared to involve working with foreign gynecologists or obstetricians. For Indonesian Migrant Worker Recruitment Services responsible for sending employees to foreign countries, this teaching material can be used as a reference of training for their employees.

1.2 The content of the teaching material

The development of this teaching material is based on the learning principles of second language learning to make this teaching easy to understand. Its design is adapted with the students’ background knowledge and set in chronological order based on the knowledge needed by midwifery. The final product of this study is English oral communication material for midwifery students to enhance students’ speaking skill and to accommodate the
learning needs for occupational English for midwifery students emphasizing on speaking skill for one semester of midwifery students. This teaching material is designed in the form of student book and audio visual for additional material.

The speaking activities in the student book cover Snapshot, Conversation in Context, Language Function and Grammar, Video viewing, and Word Power Exercise. Snapshot leads the learners ready to learn by introducing the topic of the speaking in the form of pictures and vocabulary to activate the schemata of the learners, a cognitive framework or concept that helps organize and interpret information (Piaget, 1980), a learning theory in constructivism, in which the teachers assist the students to acquire their own understanding of the content (Bauersfeld, 1995).

Conversation in Context is a dialogue between two characters or more using a specific topic in the snapshot. The purpose of presenting this part in each unit is to introduce language function to be used in the contextual communication. This underlies the theory of communicative language teaching and communicative approach which suggest that learners learn the grammatical form through meaning. Thus, learning activities are selected according to how well the learners engage in meaningful and authentic language use, (Richard & Roger 2006). This activity is ended by practicing language function in speaking exercise.

Language Function and Grammar help the learners state their idea or express anything in their mind to communicate with others; to ask the ability, to request, to get permission etc. To do so, the theories of modal such as can and could are introduced to the learners. This underlies the theory of communicative language teaching by Richard (2007) who states that target language can be presented in communication through the context. To facilitate the learners with easy learning, the deductive approach is applied in teaching language function and grammar. Thornbury (2004) argues that in a deductive approach typically language function and grammar rule are first presented and followed by examples in which the rules are applied.

Video viewing provides aural input to serve as the foundation of language acquisition and to facilitate learners to interact in spoken language. This video presentation is made in such a way since it is difficult to exercise listening comprehension without being accompanied with visualizing the picture and the real demonstration of midwife tutorial. As it is stated by Parsons (2006), the visualizing strategy refers to the act of a reader creating pictures in their mind based on information they read or hear.

Word power exercise is designed based on midwifery terminologies which are related with the topic of speaking in the presented unit. Richard and Renandya (2002) point out that vocabulary is a core component of language proficiency and offers a lot of foundation of how well learners speak, write, read, and listen. It can be concluded that learners mastering numerous vocabularies will surely have fine proficiency of speaking. However, to acquire new vocabularies learners of this product need a strategy. Cook & Mayer (1983) propose an extensive taxonomy of vocabulary learning strategies such as social strategy (SOC), determination strategy (DET), and memory strategy (MEM) by relating new vocabulary they have got and their existing knowledge.

2. THE STUDY

This study employed Research and Development to develop English Oral Communication Material for Midwifery Students following Borg and Gall (1983:772) model involving 10 steps: (1) Research and informational collection, (2) Planning, (3) Developing preliminary
Developing English Teaching Material for Midwifery Students

form of product, (4) Preliminary field testing, (5) Main product revision, (6) Main field testing, (7) Operational product revision, (8) Operational field testing, (9) Final product revision, and (10) Dissemination and implementation. Those 10 steps can be simplified based on the need of the development. Gall et al (1996) argued that the original ten step of R and D process is actually appropriate for industry and has been limited to the first seven steps for educational purposes. Some educational researchers have pursued the seven step processes of fields testing, evaluation, and improvement and have resulted in a valid product. This model is taken in this study. While for the instructional design model, researchers pursue Dick and Carey model (2005:1) which covers 10 steps: (1) Assessing Needs to Identify Goals, (2) Conducting Instructional Analysis, (3) Analyzing Learners and Contexts, (4) Writing Performance Objectives, (5) Developing Assessment Instruments, (6) Developing Instructional Strategy, (7) Developing and Selecting Instructional Materials, (8) Designing and Conducting Formative Evaluation of Instruction, (9) Designing and Conducting Summative Evaluation, and (10) Revising Instruction.

The researchers synthesized the model of instructional design into 8 steps: (1) Needs analysis and proof of concept, (2) product planning and design, (3) Prototype development, (4) Expert Validation, (5) Preliminary Field-testing, (6) Product revision, (7) Main Field Test and (8) Revision of final product and product development. (See figure 1). The simplification of the model is done due to three factors: 1) time constraint, 2) academic rule constraint and research need, and 3) financial constraints.

Fig. 1 Instructional Design Model (R&D) Process

Adopted from Dick and Carey model (2005) and Borg and Gall (1983)
2.1. Need analysis and proof of concept

The purpose of needs analysis and proof of concept is to find out the needs of the materials for midwifery students. This activity was done by distributing questionnaire to students of midwifery, midwifery alumni, head of midwifery in maternity clinic, obstetricians and gynecologists and English lecturers teaching at midwifery departments.

2.2 Product planning and design

A plan for developing English Oral Communication Material for Midwifery Students was based on the findings from the needs analysis. *Daily Hand Book of Midwife, National Standard of Midwifery Diploma III Education Program* issued by Association of Indonesia Midwife and Association of Midwifery Education Institution (2012) were reviewed as the theoretical basis to develop the material.

2.3. Prototype developments

In choosing the content of the teaching material, the writer involved related experts such as senior midwives, obstetrics, and gynecology specialist to give input of content such as preconception care, sign of pregnancy, healthy pregnancy, prenatal care, Vaginal birth (Phases of labor), post natal care, and family planning and healthy baby. Midwifery terms and midwifery text books were also reviewed to know the real world of midwifery science.

The supporting material of language function and notion was taken from *Language Function Academy* by Kate Kinsella (2005), while the grammars used in this teaching material were adapted from Betty Schrampfer Azar’s (2003) by matching with the use of language function and notion. The vocabularies were taken from midwifery hand book.

The first step of developing the teaching material was setting on the topic arrangement and the number of units. The topic in each unit was set in chronological order based on the work of midwives. The second step was to choose and determining language items used in each unit. The third step was to settle on the conversation model and exercise. The fourth step was to determine the appropriate approach of using this product. The most appropriate approach to be used in designing this product is CLIL (Content and Language Integrated Learning) which refers to situations where subjects or parts of subjects are taught through a foreign language with dual-focused aims, namely the learning of content, and the simultaneous learning of a foreign language (Mars, 2010). This approach is considered appropriate as the learners learn English as foreign language. The final step was determining midwifery terms used in all activities in sub-units.

2.4. Expert validation

After the prototype was completely designed, the draft of the teaching material was validated by the experts of language item organization and content. The language item organization such as the vocabulary, speaking, grammar focus, listening, exercise, book objective, and subject was validated by one of lecturers from Machung University of Malang, and Midwifery contents were validated by obstetricians and gynecologists from Poltekkes (Health Polytechnics) Rs. dr. Soepraoen and Stikes (Colleges of Health Science) “MAHARANI in Malang East Java Indonesia. They assessed the topic coherence in each unit such as female reproductive system, preconception care, sign of pregnancy, prenatal care, child birth process (phases of labor), post natal care, family planning and healthy baby.
2.5 Preliminary field test / Try out 1

The purpose of try out 1 is to get feedback to improve the quality of the developed teaching material. In the implementation stage, four units were tried out to 60 midwifery students of Poltekkes, dr. Soepraoen Malang, involving 2 English lecturers to teach the students in 8 meetings. During the try out, the researcher observed the activities in the classroom: the reaction of the students and lecturers while using the teaching material to decide its applicability in the classroom. The result of the observation was used to solve the weakness of the developed teaching material.

2.6. Product revision

Product revision was made to improve the quality of the book by reducing some weaknesses and adding needed things before being tried in the main field test or tryout 2. The basis of revision was taken from the questionnaire given to the students in tryout 1, lecturers’ interview and researcher’s observation as well.

2.7. Main field test / Tryout 2

The main field test or tryout 2 was carried out in wider scope to gather additional information or data to accomplish the developed teaching material. The purpose of this stage is to record more information shared by practitioners or lecturers who evaluated the developed teaching material after being revised. When the preliminary field test or try out 1 was conducted, the feedback and evaluation were taken from one university which covers 60 students and 2 lecturers only. This is not enough based on Borg, & Gall steps (1983). The try-out should be repeated twice and the scope must be wider to get more feedback and information from the revised product. In this step the researcher used 3 classes consisting 90 students from different universities and 3 lecturers taught in different sessions by practicing unit 1 to 9 (complete unit of the product) of the developed teaching material. After the process of the main field test or try out 2 was over, the questionnaires were distributed to the students and the lecturers to get richer feedbacks.

2.8. The final revision of the product

The final revision of the product was made based on the input from the main field test or tryout 2 obtained through questionnaire distributed to 90 students and 3 lecturers and the result of observation done by the researcher as well. The questionnaire for the lecturers helped identify the content of final product and questionnaire for the students to see how they perceive the effectiveness of each language skill and their component applied in every unit. Finally, the result of observation was used to strengthen the finding from both the questionnaire for the lecturers and students.

3. Results and Discussion

According to the experts on content of language aspect, the video viewing has relevant topics for the students learning midwifery. It has authentic contexts provided with questions that challenge the student’s listening competence. As the speaker (native) speaks at the normal speed rate of speech, this is likely to be challenging to beginner students and
can improve students’ linguistic competence including stress, intonation, and form. Speaking tasks and activities in this teaching material predominantly promote student-centered activities (doing role play, retelling the text, working in pair, and discussion, etc), the role of the teacher is facilitating students’ learning activity and maintaining favorable learning: (a) encouraging individual student to participate in the task, (b) giving feedback to their performance, (c) helping them with new vocabulary, structure, etc. and (d) introducing students with learning objective.

Vocabulary tasks have been designed in some interesting ways: multiple choices, word matching, and word defining. These objective tasks help the teachers assess students’ vocabulary competence quickly and diagnose their problems. New lexical items appear in every unit to enrich students’ vocabularies. The tagging of vocabulary list at the end of the teaching material helps the students learn easily.

The grammar points presented in this teaching material are contextualized with the topics and are adapted to the students’ semester. This makes it easy for the students to understand the structure. The grammar points are presented briefly and followed by examples and explanation. The form and function applied in this teaching material are made in balance and are taught inductively as this teaching material is designed for oral communication.

The subjects and content of the teaching material are clearly organized to deal with midwifery and students ‘background knowledge. The exercises are clearly instructed for the students. It begins from simple to complex exercises. In addition, the exercises foster students’ speaking skill (such as fluency). Accuracy, on the other hand, is provided through grammar structure and word power.

Some improvement needs to be done. (1) The explicit listening script has not been available at the book appendix. Providing the explicit listening script could help the students cope with their listening difficulty, (2) the limited space of grammar explanation requires the teacher to provide extra time to explain, (3) the learning objective has not been explicitly made in part of the unit, and (4) certain topics could make the students whose English level are beginner get difficulty.

The Experts who validated the midwifery contents suggested that unit 5 entitled “prenatal cares” be criticized on the presentation of the dialog. They said the dialog did not expose too much the risks of pregnancy. The risks of pregnancy in every trimester must be discussed as much as the discomfort during pregnancy and they suggested adding the dialogues of the risk factor of pregnancy in every trimester such as the first trimester, the second trimester, and the third trimester.

From the result of the tryout I, it is found that (1) the material is attractive enough, (2) some of the students (16.7%) find it not difficult, although the rest find it difficult, (3) most of the students (73.3%) find that the steps of delivery are very good, (4) most of them also find the material useful, and (5) most of them find the material practical.

From the observation during try out 1, it was found that most of the students were very enthusiastic when seeing the picture in the snapshot. They were able to understand what the pictures mean, since the pictures in the snapshot were designed appropriately with their background knowledge, although they got difficulty to apply the conversation exercise in the first meeting. They were familiar with the pictures and how they should work though they did not have enough vocabularies to assemble words a sentence. After being helped by the teacher by supplying the synonym of the words, they began speaking by making some pauses. Finally, they felt happy and proud to be able to talk about their midwifery knowledge in English.
Grammar focus was reacted positively by some of the students. The rest thought that grammar activities would be boring at first. The lecturer successfully enlivened the class situation by applying inductive method although it was still hard for them to apply it in the conversation exercises. They did not apply the grammar well in their conversation and a lot of feedbacks were given by their lecturers.

Word power was responded negatively and became the problem for them. The students in the two classes found it confusing and hard to do exercise in word power. Some vocabularies borrowed from Latin and having similar sounds with English could be understood directly. The word *delivery*, for example, was translated lexically to become *sending* but in the midwifery term it means *giving birth*. This made them little frustrated to practice the vocabularies in conversation. This case became an important note of researcher for the subject of revision.

Video viewing was responded outstandingly positive. They looked enthusiastic and spirited to pursue the listening and viewing activities using the audio visual, as in the video viewing activity the narrator presented the topics not only using their authentic language skill but also using their gesture. This makes the questions presented in the teaching material easy to be answered although some students sometimes asked their lecturer to repeat or turn the tape more than once. The speaking practice taken from the listening text as well as picture from the video was also done well by the students. They could even make different models with the same context of the text.

From the result of preliminary field test or tryout 1, among 5 items of the questionnaires containing attractiveness, difficulty level, usefulness, delivery steps, and practicality of the teaching material, only difficulty level was responded negatively by the students. More than 50% of them found the teaching material too difficult especially on the vocabularies in word power and snapshot.

Based on the information from the questionnaires, interview, and observation, the teaching material revision was conducted focusing on the vocabularies used in word power and snapshot. The word list was then provided at the appendix to assist the students to work independently when finding difficult words and to make them fluent in speaking practice.

The result of Tryout 2 shows that (1) the teaching materials were attractive, (2) the teaching material was rated not difficult by 54.9% of them, difficult enough by 37.4% of them, (3) most of them found the steps of teaching material delivery good enough, (4) they found the teaching material useful, (5) half of them found the material easy although the other half found it difficult.

From the 3 lecturers after Main Field test of the product, it is found that the reaction of the midwifery students toward the teaching material is positive, the difficulty level of the teaching material is appropriate, the teaching material was considered to be comfortable, the teaching material is easy to be used, and the order of sub-unit presentation in every unit is good.

The result of main field test or tryout 2 and researcher’s observation show that no more serious weaknesses were found, so the final teaching material of English oral communication material for midwifery students are ready to be used.

4. SUMMARY

This study produces the teaching materials of English Oral Communication for Midwifery Students by adopting Dick & Carry instructional design model involving 8 steps. The topics used in every unit in this teaching material are set on the basis of
midwifery curriculum and jobs which should not be randomly presented. The topics and the contents as well as the language use in one unit are designed in such a way to support students’ understanding to do the activities in the following units.

The strength of this material is on the integrated model of topic presentation in every unit discussed in all sub-unit activities. Furthermore, the applications of the activity models are supported by the constructivism learning theory introduced by Piaget (1980) who argued that human acquired knowledge and meaning from the contact between their experiences and their thought. In another word, it can be said that learning should not begin from zero. Instead, the students use the information they get to acquire more knowledge. This way helps the students understand easily further explanation by the lecturers. This product fills the gap of English speaking learning needs of midwifery students who are prepared to work in international maternity clinic and hospital in local and foreign countries as well. This is done by providing various model of speaking practice designed on the authentic situation of the midwife work.

Difficult word lists are presented at the last page of the product to help students cope with difficult vocabularies while doing the activities. The lists of difficult words are set specifically in the order of units and topics to help the students in searching for complex words. The listening section in this product is not only presented in the form of audio but also in the form of visual presentation. Hence, they can help the students listen and see the true-life context, gestures, and demonstration to ease them to learn pronunciation, word stress, and intonation.

Despite the strengths, this teaching material as the result of the study has some weaknesses. The weak point is found on the leveling of the teaching material user. This teaching material is designed only for general students of midwifery department taking English. And as the course requirement and the student input in every university may be different, those who use this product should adjust the material and still keep up with the difficulty level of this product.

Another weakness is related to the assessment of teaching material as this teaching material is not provided with assessment section. It is the job of the teachers to create their own technique of assessment. Finally, to enhance this teaching material quality for the student learning needs, more feedback from related parties such as students, teachers, supervisors, linguist and medical expert are needed.

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