

Developing a Set of Supplementary Learning Materials of Written Cycle for Students of Grade XI of Automotive Engineering at Vocational School

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Abstract: The objectives of this study were (1) to find out targets needs and learning needs of eleventh grade students of Automotive Engineering at vocational schools, (2) to develop appropriate supplementary learning materials of written cycle for grade XI students of Automotive Engineering at Vocational Schools. This study belonged to research and development study. The research subjects were the grade XI of automotive engineering students of SMKN 1 Seyegan. The research procedure, was adapted from Borg & Gall (1983) procedure with major adjustments. The study used two types of questionnaire: 1) need analysis questionnaire to find out students' needs and learning needs and 2) material evaluation questionnaire based on *Pedoman Buku Bahasa Inggris SMK*. To analyze the questionnaires, descriptive statistics was used. There were three developed units. Each unit consists of 14 tasks divided into three parts: warm up, main activities and closing. The topics of the materials are automotive-related. Based on the results of expert judgement, the developed materials can be considered as "good".

Keywords: *Supplementary Learning Materials of Written Cycle, Automotive Engineering at Vocational Schools*

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ABSTRAK

Penelitian ini bertujuan untuk (1) mengetahui kebutuhan belajar siswa dan pembelajaran kelas dan (2) mengembangkan materi ajar pendukung khususnya siklus tertulis untuk siswa kelas XI jurusan Teknik Kendaraan Ringan (TKR) di sekolah kejuruan. Subjek dari penelitian ini adalah siswa kelas XI jurusan Teknik Kendaraan Ringan SMKN 1 Seyegan. Tahapan penelitian ini diadaptasi dari model yang dipaparkan oleh Borg & Gall (1983) dengan beberapa penyesuaian. Tahapannya ialah Penelitian ini menggunakan dua macam kuesioner: 1) kuesioner untuk menganalisis kebutuhan siswa, 2) kuesioner untuk evaluasi materi yang berdasarkan pada Pedoman Buku Bahasa Inggris SMK. Statistik deskriptif digunakan untuk menganalisis hasil dari kuesioner. Ada tiga unit yang dikembangkan. Tiap unit terdiri dari 14 tugas yang dapat dibagi menjadi tiga bagian yakni: pemanasan, aktivitas utama, dan penutup. Topik dari materi yang dikembangkan berbasis pada otomotif. Hasil dari evaluasi materi menunjukkan bahwa materi yang dikembangkan memenuhi kriteria baik.

Kata Kunci: *materi ajar pendukung, jurusan TKR*

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Introduction

English has been an international language that enables people around the world communicate with one another. The communication covers many areas in both real and virtual worlds. Because of its importance, mastering English is compulsory for everyone nowadays. Due to that fact, the government of the Republic of Indonesia includes English as one of compulsory subjects in its national curriculum.

Currently, the Indonesian government implements Curriculum 2013 as its national curriculum. Compared to its predecessors, there are some changes in the curriculum. One of them is that the government provides the students with learning materials needed for all majors, including English materials for vocational schools. The present materials are for general-use. On the contrary, students of vocational schools have difficulties in learning those materials. The learning materials for vocational schools should cover students' expertise because vocational graduates focus on getting a real job after completing their study. However, in this study, the learning materials being developed are not going to substitute materials provided by the government. They are designed as the supplementary materials. Due to the time limitation, the materials that will be developed only focus on students of automotive engineering. More specifically, the materials only cover written cycle of English skills.

In teaching English for vocational schools, English for Specific Purposes (ESP) is the suitable approach. It is because ESP takes the students' preferences into account (Hutchinson & Waters, 1987: 19). Moreover, ESP is meant to teach English for students that have specific expertise i.e. vocational schools students of automotive engineering.

In ESP materials development, there are two things that need to be considered: 1) target needs/learners' needs and 2) learning needs. Hutchinson and Waters (1987: 55) classify the target needs as further broken down into three: necessities, lacks and wants. The learning needs, according to Nunan (2004: 40), consist of input, procedures, setting, teacher and student role.

After considering target needs and learning needs, then it is to choose suitable instruction. Content-based instruction (CBI) is considered as the most effective approach to be used since it can associate the materials development with the learners' needs in learning a second language (Richards and Rodgers, 2001: 207). The advantage of CBI is to give an emphasis on both subject-matter knowledge and English equally. CBI materials consist of several units focusing on different topics which explore more specific aspects of the general theme. Topics then should be arranged to provide coherence and to generate content and language.

After deciding the instruction that is going to be used, materials development comes next. Tomlinson (1998: 2) states that materials are anything used by teachers and learners to achieve the learning goals. Related to materials development, Nunan (1991: 216) states that material development is basically dealing with selection, adaptation and creation of teaching materials. According

to Richards (2001: 86) teaching materials in the process of teaching and learning has functions as the language input for learners, and ideas for teachers in planning and teaching lessons.

Materials evaluation is one of steps taken in materials development. Tomlison (2013: 21) states that materials evaluation as a process will determine whether the developed materials are practical in use or not, how the learners will get benefits from them. Hutchinson and Waters (1987: 96) pointed out materials evaluation is not a tool to determine whether the learning materials are good or not, rather how its appropriateness in use. In this study, the material evaluation will be based on criteria set by *Badan Standar Nasional Pendidikan* through its *Instrumen Buku Bahasa Inggris SMK*.

Research Method

The needs analysis was conducted on May 21, 2016 at SMKN 1 Seyegan. The subjects of this research were 32 students of grade XI of Automotive Engineering. The procedure of the research was based on Borg & Gall (1983) model with major adjustments. The steps were: 1). research and information collecting, 2). planning, 3). developing first draft materials, 4). materials evaluation, 5). revising the materials. There were two types of questionnaires in this study. The first one was used to conduct needs analysis. Besides using English for Specific Purposes (ESP) as main approach, the documents of Curriculum 2013 were also taken in account in developing needs analysis questionnaire. The second one was used to evaluate the materials. The second questionnaire was developed based on criteria of *Pedoman Buku Bahasa Inggris SMK*. The evaluation process was carried out by an expert. Descriptive statistics was used to analyze the data of needs analysis questionnaire. The results of materials evaluation were analyzed by calculating the range to determine the appropriateness of the materials according to formula proposed by Suharto (2006: 52-53).

Research Findings

The findings of this study covered the results of needs analysis, the course grid, the unit design and the results of the material evaluation. The course grid was developed by taking the results of needs analysis and core and basic competence of Curriculum 2013 into account.

The needs analysis consisted of two parts: target needs and learning needs. The first part, target needs, could be further broken down into three aspects: necessities, lacks, and wants. In terms of necessities, some students thought that the necessity of passing national examination was their short term goal in learning English, while their long term goal of learning English is to work at automotive company. The importance of mastering English for students of automotive engineering is to understand maintenance service instructions. The students also thought that automotive parts were important source of written discourse. Understanding Automotive-related things is one of important things to students when they are working at workshops.. In terms of lacks, English

proficiency level of most students was at the beginner level. The students had difficulties in understanding vocabulary both general and automotive. They also got problems in expressing their ideas in written form. The topics that students were supposed to work needed to be interesting for them. In terms of wants, students want to improve their vocabulary, grammar, as well as macro skills i.e. reading and writing.

The second part of needs analysis is learning needs. They consist of five components: input, procedures, settings, teacher and students role. The results of students learning needs were as follows. input text is simple, less than 250 words, with a list of vocabulary, with embedded pict in writing. Activities of reading are matching and true or false questions and analyzing vocabulary. Knowledge of text feature is needed. Fill the blank in texts and arrange the jumbled sentences into good text are writing tasks. Identifying and fixing problems and doing exercises are grammar improvement activities, vocabulary activity is to translate and match English. Students choose to do reading tasks in pair and in small group while they choose to do writing tasks individually and in small group. Teachers are required to have great understanding of the materials so that they can help their students by explaining more detail and guiding students to explore the materials deeply. Students are required to be active in providing other students with feedback.

The results of needs analysis were used to design the course grid of the materials. The course grid was a basis of the materials being developed. The development of the course grid also took English for grade XI of vocational school of Curriculum into account in addition to the results of needs analysis. The course grid consisted of coe and basic competences, unit title, indicators, grammar focus, vocabulary list and activities.

After developing the course grid, the instructional materials then were developed. The materials consist of three parts: introduction, contents and closing. The introduction of the materials covered title of the book, preface, table of contents and map of the book. The contents of book covered three developed units. The closing of the materials covered references and sources of the pictures.

In the developed materials, there were three units. Each unit consists of 14 tasks that can be divided further into three main parts: introduction, main activities and closing. The introduction of the unit covered unit title, a brief explanation of learning objectives and warm up section. In warm up section, students are exposed to a series of pictures which is related to the topic being discussed. In warm up section, students are supposed to do brainstorming related to what they have to learn in that unit.

The main activities in each unit is also called "Let's Read and Write". In this part, tasks were designed to guide students to achieve the targeted competences. In addition to reading comprehension tasks and writing tasks, vocabulary tasks and grammar focus are also emphasized.

The last part of each unit is closing. The closing consists of two parts: reinforcement and reflection. The reinforcement is to reinforce students

knowledge by providing them a series of tasks to complete. The reflection part is to give students chance to reflect what they have learnt in the unit.

The first draft materials then were evaluated by an expert. There were four aspects that were evaluated: the appropriateness of the content, presentation, language and topography/layout. Based on the results of material evaluation, the mean of all evaluated aspects of the materials was 2.8. The value was within $2.5 < x \leq 3.24$. The developed materials were thus classified as “good”.

In terms of content, the materials were considered as “good”. This was because 1) the materials were designed in accordance with core and basic competences of grade XI and social functions stated in Curriculum 2013, 2) the materials were relevant with students future occupation, 3) the materials included linguistics features of the text. 4) the materials used up to date information.

In terms of presentation, the materials were categorized as “good”. This was based on the facts: 1) the materials that were developed had a good systematic, 2) each unit of the developed materials had similarity with one another such as the number of tasks, parts of the unit, the existence of reflection task, 3) the materials emphasized on students thinking, discovery learning and students-centred activities.

In terms of language, the materials were classified as “fair”. The fairness of the language use in this materials could be seen from 1) the materials were fair related to the students’ level of thinking. The materials were a bit challenging for students of vocational schools, 2) the effectiveness of language used in the materials was not appropriate. There were some grammatical errors, 3) there were a good coherence and cohesion of material components.

In terms of lay out, the materials were categorized as “good”. It happened because 1) the materials were printed out using ISO standard paper, 2) the materials were propotional, 3) the illustrations used in the materials fulfilled both aesthetics and functional roles, 4) the materials did not use many variety of font, 5) the materials used *bold*, *italic*, *underlined* and *capitalization* words less proportional.

Conclusions

Regarding the findings, some conclusions are drawn. They cover the targets’ needs, learning needs and characteristics of good English supplementary written cycle instructional materials for grade XI students of Automotive Engineering at vocational schools.

The target needs consists of three aspects: necessities, lacks and wants. The results of the targets’ needs are as follows: 1) There are two students’ goals: small and big. The small goal is that students just want to pass the national examination. The big goal is that students want to be professional mechanics/workers in big automotive companies, 2) Topics that students prefer are related to their major, Automotive Engineering, 3) English proficiency level of

most students is at the beginner level, 4) Students want to improve their vocabulary, grammar, as well as macro skills i.e. reading and writing.

Learning needs are divided into five components, namely: input, procedures, setting, teacher and student roles. The results of the learning needs are as follows: 1) In terms of input, students want input texts that are familiar with them. In learning writing, the picture should be available, 2) In terms of procedures, students chose to have various activities, 3) In doing the tasks, students want tasks that are required students to do tasks individually, in pair and in small group, 4) Students hope that teacher is active in process of learning and ready to explain the materials, 5) At the same time, students hope their colleagues to be active too in giving critics or suggestions of their writing.

The developed materials are developed based on combination of need analysis and Curriculum 2013. After done, the developed materials are evaluated by an expert. Based on the results of expert judgement, the materials are classified as good. The characteristics of the materials are as follows: 1) Each topic of each unit of the materials are related to Automotive Engineering, 2) Each unit of the materials consists of: a) Introduction: the unit title and warm up, b) Main Activities: let's read and write, vocabulary and grammar focus, c) Closing: homework and reflection.

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