

Developing English Materials for Grade XI of Avionics Maintenance and Repair Study Program at SMK Penerbangan

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Abstract: This study aimed to describe the English learning needs and to develop appropriate learning materials for grade eleven students of Avionics Maintenance and Repair program of SMK Penerbangan AAG Adisutjipto. This study was a Research and Development (R&D) study using the revised version of ADDIE model proposed by Jolly and Bolitho (in Tomlinson, 1998: 96-98). The data were collected by distributing two types of questionnaires. The first was needs analysis questionnaire to gather information of students' needs. The second was expert judgment questionnaire to obtain the data of the appropriateness of the materials. According to the expert judgment the mean score of all aspects of the three developed units was 3.59 considered as "very good". It can be concluded that the developed materials were appropriate for the eleventh grade students of Avionics Maintenance and Repair study program.

Keywords: English Materials, Avionics Maintenance and Repair

Abstrak

Penelitian ini bertujuan untuk mendeskripsikan kebutuhan belajar bahasa Inggris dan mengembangkan sebuah bahan ajar bahasa Inggris yang sesuai bagi siswa kelas sebelas jurusan Perawatan dan Perbaikan Instrumentasi Elektronik Pesawat Udara di SMK Penerbangan AAG Adisutjipto. Penelitian ini menggunakan pendekatan Research and Development (R&D). Data dalam penelitian ini dikumpulkan dengan membagikan dua jenis kuesioner. Kuesioner pertama adalah kuesioner untuk menganalisis kebutuhan dengan mengumpulkan informasi tentang kebutuhan siswa. Kuesioner kedua adalah kuesioner penilaian ahli yang digunakan untuk memperoleh data tentang kesesuaian materi. Menurut data penilaian ahli, nilai rata-rata dari semua aspek dari tiga unit yang dikembangkan adalah 3,59, artinya materi tersebut dinilai "sangat baik". Dapat disimpulkan bahwa materi bahasa Inggris yang dikembangkan sesuai bagi siswa kelas sebelas Jurusan Perawatan dan Perbaikan Instrumentasi Elektronik Pesawat Udara.

Kata Kunci: Materi Bahasa Inggris, Perawatan dan Perbaikan Instrumentasi Elektronik Pesawat Udara

Introduction

SMK's students have highly varied study program options. However, most of English textbooks available for SMK's students are general English textbooks which do not exactly cater to the needs of vocational high school students. The English learning materials should suit their professional skills because they may need to use English to communicate in the real workplace situation, for vocational high school students of the Avionics Maintenance and Repair study program need to learn the specific English used to support them in English with other people in the workplace while doing some specific jobs.

Vocational high school English teachers are mostly aware of the needs to teach students English for specific purpose considering that students come from different study programs. Unfortunately, ready to use and contextually relevant English materials are not available yet. Furthermore, teachers are either having no time or not well informed on how to develop their own teaching materials.

In reference to these problems, this research aimed to develop English learning materials for odd semester of grade eleven students of Avionics Maintenance and Repair program of SMK Penerbangan AAG Adisutjipto based on Curriculum 2006. This research formulated some problems as follows:

1. What are the English learning needs of grade eleven students of Avionics Maintenance and Repair program of SMK Penerbangan AAG Adisutjipto?
2. How are the appropriate English learning materials for grade eleven students of Avionics Maintenance and Repair program of SMK Penerbangan AAG Adisutjipto developed?

Research Method

This research was categorized as Research and Development (R&D). This research was conducted on October 2015 at SMK Penerbangan AAG Adisutjipto. The samples of the research were 30 grade eleven students of Avionics Maintenance and Repair Study Program.

The research procedure of this study was adapted from revised version of ADDIE model proposed by Jolly and Bolitho (in Tomlinson, 1998: 96-98). The steps consisted of (1) identification of need; (2) exploration of need; (3) contextual and pedagogical realisation of materials; (4) production of materials; (5) Evaluation; and (6) revising and writing the final draft.

The instrument of the research was questionnaire. There were two questionnaires used to collect the data. The first questionnaire was for the students and the second questionnaire was for the expert judgment. The data of the first questionnaire were collected to find the learning needs of the students. The second one was for the expert for the purpose of materials judgment. For the first questionnaire, the data were analyzed by calculating the percentage of each answer in the questionnaire and the answer of which percentage was the highest was considered representing the students' actual condition. Meanwhile for the second questionnaire which used the likert scale, the researcher used a formula stated by Suharto (2006) to analyse the data.

Research Findings

The result of this research was a student's book based on 2006 curriculum using Content-Based Instruction. Stoller in Richards and Renandya (2002: 94) cites that the popularity and wider applicability of CBI in English language instruction have increased dramatically since the early 1990s. He further mentions that CBI prefers to use content as the vehicle for developing language skills. Content refers to the information or subject matter that people learn or communicate through language rather than the language used to convey it (Richards, 2006: 28).

Nunan (2004: 31-33) proposes five steps of developing materials; (1) Schema Building, (2) Controlled Practice, (3) Authentic Listening Practice, (4) Focus on Linguistic Elements, and (5) Provide Freer Practice. The students should be encouraged to extemporize, using whatever language they have at their disposal to complete the task. The first step of conducting this research was needs analysis. The needs analysis was conducted on October 2015 by distributing questionnaires to the students. The first questionnaire was in the form of multiple choice questions aimed to find the students' learning needs. The learning needs consisted of input, procedure, learners' role, teachers' role, and setting.

The next step of the research procedure was exploration of need where the area of need/problem in terms of what language, what meanings, what functions, what skills, and so on that need to be considered and put into the materials. Then, in the contextual and pedagogical realisation stage, new materials were developed by finding suitable ideas, contexts or texts with which to work as part of contextual realization. After that, the pedagogical stage was realised by finding appropriate exercises and activities as well as the writing of appropriate instruction.

In evaluation stage, the materials were submitted to experts against some objectives in order to assess the appropriateness of the materials. The results of the evaluation were analyzed and used to revise the first draft of the materials. The revisions were based on some categories such as the content, the language, the method, and the presentation. After being revised, the final product was considered as appropriate English learning materials for eleventh grade students of Avionic Maintenance and Repair study program.

Conclusions

Learning needs were what the learners need to do in order to learn. There were five aspects which belonged to the learning needs. Those were input, procedures, setting, teachers' role, and learners' role.

According to the results of the expert judgment, the developed materials were considered appropriate. The developed materials consisted of three units built around the theme of work environment. Each unit consists of title and main lesson. There were four sections in each unit namely "Gear Up", "Oral Cycle",

“Written Cycle” and “Fun Fact”. Gear Up was aimed to introduce the topic of the unit to the students. It was followed by “Oral Cycle” where students practice their listening and speaking skills, and “Written Cycle” where students practice their reading and writing skills. Each unit was ended with “a Fun Fact” to refresh their mind.

Based on the results of the expert judgment, the mean score of the whole aspects of the developed materials was 3.59 which was in the range of $3.25 \leq x \leq 4$, and categorized as “Very Good”. It could be concluded that the materials were appropriate for the eleventh grade of Avionics Maintenance and Repair study program at SMK Penerbangan AAG Adisutjipto for learning English.

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