

Developing English E-Vocabulary Module as Supplementary Book of Computer Learning Program

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Abstract

This research aims to develop an electronic English module that can be used by computer/ IT learners do deeply learn computer programming. It employs Research and Development (RnD) method by applying 4D steps namely define, design, develop and disseminate. Questionnaire is used as instrument and curriculum analysis is done to get the whole description and topic analysis. The result reveals that 83% of alumna agreed that computer learner needed the module that contain the definition of word that used in computer. While the curriculum analysis reveals that some main topics consists of 3 main subjects namely Microsoft word, Microsoft Excel, and Microsoft PowerPoint. There are two experts gave judgement and validation regarding to the product. The first expert is from English Language practitioner that validate and judges the content and language aspects. The result reveals that module got 4,7 with maximal score is 5. The second expert is from computer/ IT practitioner. He concerns on validating material, appearance, and media and technical terms on the module. The result shows that 4.4 with the maximal score is 5. It can be implied that both experts judge module is appropriate to be used as supplementary material for computer course.

Keywords: English Electronic Module; vocabulary; English for specific purpose; computer learning

1. Introduction

Nowadays, technology is crucial part in human's life. Every aspect uses technology to help human get done the work easier. Computer is one of technology's products. It becomes human's essential part to help working and accessing information and knowledge from around the world. Technology information has revolutionized all aspects such as business, communication, economy, education and so on (Hosseini & Azimi, 2012). the computer is part had become one of the technologies used widely by human. Due to the advanced progression and the potential of computer made, now computers founded in various places and used to help various human's job. Now, numerous jobs and works require skills to utilize computer. The portion of the job that requires computer skills greatly increases every year. Soon, every job requires computer skills. To overcome this, acquiring and mastering computer skill is essential.

Computer skills can be acquired by self-learning or joining the institution that taught computer skills. Nowadays, institution and training organization are available to offer some services to learn computer course. Each training organization will provide teachers or tutors, devices, program and curriculum that aim to help students to learn. Automatically, those complete offer give opportunity for students to learn deeply about computer skill. In line, Roper and Salary et al (2018) express that good facilities and good environment can push up and increase students' ability in systematic and critical thinking (Lopes et al., 2019). It can be implied that appropriate program and good facilities can help students to learn well.

However, there is one problem that made computer learning harder namely is language barrier. Most of computer program use English as medium of language. Consequently, numerous learners feel problems and obstacles in learning. Numerous language barriers in learning are habits, information retention abilities, linguistic issue, and attitude toward learning. Other barriers are concerned with the nature of learning style, methods and pedagogics. (Khan, 2016). Regarding to the barriers, most of learners got problems in understanding technical terms in computer. learners commonly need to understand the terms that used in computers menu and each term is in English. It has specific meaning in programming. It can be implied that English is crucial thing that should be understood by the learners. It is

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used in any aspects of human's life such as technology, economy and trade, health and others. Dealing with technology, it is essential part in teaching and learning. It helps teaching and learning keep going both in synchronous and asynchronous mode (Lestari & Fatoni, 2022). In other word, technology and learning are essential parts in educational aspect.

In learning English, vocabulary is fundamental aspects that should be mastered by the students. It is essential component to build up good and well-structured sentences. Sutopo summarizes that vocabulary is essential component to connect to four skills in English. In other word, vocabulary is a core of building and shaping good English skills (Lestari & Isma, 2019). In summary, basic component in learning English is building up good vocabulary. Consequently, it will help learners to shape and train good skills in English namely speaking, listening, reading and writing. In same case in learning computer, learners should understand various menu that available in computer which they are written in English. In short, vocabulary, learning English and learning computer are related each other. Regarding to the explanation above, the researchers need to seek the way to develop English vocabulary learning or teaching material in the form of an electronic Module that can be used as supplementary module to support learners in understanding and leaning computer course in computer Training Centre. In short, this study aims to develop electronic vocabulary dictionary as a supplementary module to help computer learners to learn technical terms in computer training centre. It particularly aims to help them in technical vocabularies that available in computer and help them to easily understand.

1.1. Objective of this study

This study is intended to develop electronic English vocabulary module as supplementary module for computer learning in computer training center.

2. Research Method and Materials

In this study, researchers used research and development model 4-D. Research and development is one of research method that used to develop a new product or to improve the existing product (Borg, 2014). While, 4-D model is research and development method that consisting 4 major stages; Define stage, design stage, develop stage, and disseminate stage (Irawan et al., 2018). The participant of this study consists of 36 learners of computer training centre in Tuban regency. To collect the data, researchers use questionnaire and validation sheet. The questionnaire is intended to gather the data about their needs, materials design and type of learning material that they truly need. While validation sheet aims to give judgment and validation from experts regarding to the products.

To analyse the data, researchers use descriptive analysis to describe learners' needs namely necessity, wants and lacks that distributed from questionnaire. While feedback from experts which are written in validation sheets. The numeric data that collected in validation process are analysed by using Likert scale. The Likert scale that used to analyse the data is consisting 5 level of eligibility, which can be seen on the Table 1.

Table 1. Expert Eligibility

Criteria	Interval Score	Category
$\bar{x} \geq Mi+1,5Sdi$	$\bar{x} > 4,05$	Valid
$\bar{x} \geq Mi+0,5Sdi \leq \bar{x} < Mi + 1,5 Sdi$	$3,35 < \bar{x} < 4.05$	Enough
$\bar{x} \geq Mi - 0,5Sdi \leq \bar{x} < Mi + 0,5 Sdi$	$2.65 < \bar{x} < 3.35$	Average
$\bar{x} \geq Mi - 0,5Sdi \leq \bar{x} < Mi - 0,5 Sdi$	$1.95 < \bar{x} < 2,65$	Big Revision
$\bar{x} < Mi-1,5Sdi$	$\bar{x} < 1.95$	Total Revision

3. Results and Discussion

This study implemented research and development with 4D model which consist of define, design, develop and disseminate. The first step is defined. It is got from need analysis from questionnaires and curriculum analysis. Based on data collection and analysis, the result reveals as the Table 2.

Regarding to the table 2, it reveals that there are some aspects that included in questionnaires namely types of learning process, types of learning material and the existence of word definition/terms on computer learning. The first aspect is type of learning process. The result shows that 50% participants state that they want to practice accompanied by teachers. It means that when they learn, teacher's role is essential role. They need to be guided by teacher while learning computer and learning terms in computers. The second aspect is types of learning material. The result describes that 52,8% participants claim that they preferred learning material that contain some helpful new material. from the result can be indicate that in developing supportive module for computer learning program, the researchers need to make sure the product is appropriate be used in practical learning process that accompanied by teacher, and need to be included new material that will be helpful when they are learning the program.

Table 2. Result of Questionnaire

Aspect	Item	N	Percentage
Type of Learning Process	Practice accompanied by teacher	18	50%
Type of Learning Material	Add some new helpful material	19	52.8%
The existence of word definition on computer learning program	Really important	27	75%
Total Participant		36	100%

The third aspect is to investigate toward learner opinion about the importance of the existence of word definition on computer learning program. 75% of learner strongly agree that the existence of word definition on computer learning program was really important. It shows that most of learners demand new insight and knowledge about the word that founded in computer learning program. Then, based on those findings, the researchers jump on the next stage. It is design stage. In design stage, the findings from define stage are used to design a product based on learners' needs.

In design stage, the researchers make outline and frameworks of the module. Those outlines and framework are developed into prototype that consist of some aspects namely list of terms in computer's menu, their definitions and some explanation about their operation. The prototype is consulted to the two experts to get some suggestions to improve and revise it better. There are two experts or validators regarding to their competent. The first expert is language expert who concerns on language or vocabulary terms that used in e- English module. The second expert is media and computer expert who concerns on computer and programming. Based on some examination, deep talk and consultation. After having further discussion and examination of the prototype has got some suggestions and revisions. Then, the experts give validations and judgement as follows on Table 3.

Table 3. The Result of Validation Process

Language Expert		Media Expert	
Indicator	Score	Indicator	Score
Speeling and capitalization	5	Appearance	4
Language richness	4	Layout	4.5
Vocabulary	5	Material	5
Punctuation	5	Font	4.5
Grammatical	4	Structure	4
Translation	5	Media	4.5
Total Score	4.7		4.4

Regarding to the table 3, it reveals that each expert scores averagely 4. The language expert scores 4,7 and the media or computer expert scores 4,7. Based on the finding, it can be summarized that validation data was $\bar{x} > 4.05$, which is categorized as valid. From this data, could be seen that both of the score that got from the expert was achieved the highest category in expert eligibility, it implied that the module was described as valid product that already suitable to be used as supporting module for computer learning program.

After the prototype of module was validated by the experts. the last stage in this research was "disseminate" stage. In disseminate stage, the prototype was formed into form of final module and converted into "Pdf" format. Due to "pdf" format is able to be opened in almost every smartphone in the world. Computer learner can download and open the module from their smartphone. This strategy intended to made the module more reachable and easier to use as the supporting module in computer learning program.

4. Conclusion

Electronic English vocabulary module is developed as a supplementary module to help computer programming learners understand deeply about technical words in English. It is used research and development (R&D) by applying 4D model namely define, design develop and disseminate. Based on the need analysis, the researchers found that some learners' needs can be seen from some aspects namely type of learning, learning materials and the existence of word definitions or technical terms. The result reveals that vocabulary is one of learners' needs. Those are essentially influential aspects. Due to those needs, electronic English vocabulary module is developed and it is used as a supplementary book and sources for computer learners in computer training center in Tuban Regency. The module is developed based on learner's needs and material that they concern on. They consist of numerous vocabulary form Microsoft Word, Microsoft Excel, and Microsoft PowerPoint. The module was formed into "pdf" file, due to its compatibility to almost every smartphone, made the module easier to be reached and used by learner.

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