Guidebook Development for Writing PDSI Report with Language Error Analysis at SMK-SMTI Makassar

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ABSTRACT

This study is needed to create a solution for the problem of the lack of students' writing skills, especially in writing PDSI reports. The objective of this study is to determine (1) the process of developing the guidebook, (2) the validity of the developed guidebook, (3) the practicality of the developed guide, and (4) the effectiveness of the developed guidebook. This type of research is development research. The model used is the developed Borg and Gall model, which consists of eight stages. Data used in this study is divided into three sources: needs analysis data, product development data, and field test data. The instruments used in this study are an interview guide and a questionnaire. The data collection methods used are observation, interview, and questionnaire. The data analyzing method used is descriptive quantitative. The results of the study indicate that (1) it has succeeded in explaining in detail the procedure of developing guide book for writing PDSI reports with language error analysis based at SMK-SMTI Makassar, (2) this developed product has been proven valid with 86,25% validity percentage by first expert validator and 87,5% validity percentage by second expert validator, (3) this developed product has been proven practical with 89% practical percentage, (4) this developed product has been proven effective to improve students abilities based from 58,4 pre-test score to 86,6 post-test score. From the result of these studies, it can be concluded that guidebook development for writing PDSI reports with language error analysis based at SMK-SMTI Makassar is valid, practical, and effective.

Keywords: guidebook development; report writing; research and development

INTRODUCTION

Communication is never separated from human life. Whatever activity humans do needs communication. Especially in times like this, where technology plays a significant role as a tool of human communication, its role continues to grow along with current developments. One of the skills that is important in communicating is the skill to embody thoughts. To make thoughts embodied by others, thoughts need to be disclosed with words, either verbally or non-verbally. However, non-verbal communication has some shortcomings compared with verbal

communication. One of the reasons for the lack of non-verbal communication is that if the thoughts have been written once, then it is impossible to explain the thoughts again to the reader. Therefore, non-verbal communication needs precision and accuracy so humans can embody thoughts to others more effectively (Anggara, 2020).

Indonesian language is a language that is used by the majority of Indonesians to embody their thoughts. The Indonesian language even become a common subject that all Indonesian student study. Indonesian language skills are becoming an absolute requirement for Indonesian students to embody their thoughts effectively. By learning the Indonesian language, students are expected to have high communication skills, including in the scientific field. Students, as academics, must understand and master non-verbal communication (Mahardika et al., 2018).

The standard grammar Indonesian people use is Ejaan yang Disempurnakan (EYD). EYD is also used as a reference for scientific writing created by students (Kusriyati, 2021). Grammar skills, the ability to compose words, sentences, and paragraphs, and producing scientific papers from various sources are some of the skills that students hopefully master. Indonesian language is also studied at all levels of education, including vocational school. One of them is SMK-SMTI Makassar.

SMK-SMTI Makassar is one of the vocational schools that adopted the dual system concept. To create competent human resources, SMK-SMTI Makassar runs multiple programs to develop student competencies. One program is PDSI (Pendidikan Dual System di Industri) or Industrial Dual System Education. This program is targeted to make students used to the work situation and conditions in the industry. One of the requirements needed to pass this program is to make reports. However, student writing mistakes have often been found in their reports, from the report systematics to the report's contents. In this case, students do not understand the rules of using punctuation, letters, and words to produce sentences and coherent paragraphs. To solve this problem, language error analysis is needed. Student writing mistakes must be analyzed first to know what mistakes are commonly shown in PDSI reports.

Other researchers have done studies about language error analysis. The studies carried out by (Supriani & Siregar, 2016), (Suhariyanti, 2020), (Rismandari, 2020), (Gunawan & Retnawati, 2017), (Anjarwati & Sabardilla, 2021), (Sutomo, 2021). The first study analyzes language errors using linguistic category taxonomy. This study found four error elements included in the linguistic category: phonological error, morphological error, syntax error, and lexical error. The first study only analyzes language errors using linguistic category taxonomy and uses this method. One thing that distinguishes this study from the previous ones is that this research not only analyzes language errors but also develops a learning guidebook for students. The second study describes language

errors in a grade XII student paper of Tamansiswa School, Medan. This study also found some writing mistakes, such as using italics and bold letters, punctuation, incoherent sentences, and writing errors. Things that distinguish this study from the previous ones mentioned are that this research not only analyzes language errors but also develops a learning guidebook or teaching materials that students can learn independently to overcome writing errors by students in their PDSI reports. The third study develops a learning guidebook with four defining aspects: content, presentation, language, and graphics. The developed guidebook also contains individual and group tasks, summaries, and evaluations of every study activity. This study is very similar to the one that the researcher wants to do. However, one distinguishing this study from those mentioned in this research is that it analyzes language errors while developing a learning guidebook. The fourth study found 162 errors on the student paper, like capital letters, affixes, prepositions, et cetera, the same as the fifth study. However, in those studies, the writer offers no guidebook development or solution to solve the problem.

According to Sudjana (Permana, 2022) interprets a guidebook as a complete measurement tool, developing a learning guidebook is an important lesson component. This learning guidebook has independent roles and tasks because it can be used to unite all other units. From another perspective, learning guidebooks can be interpreted as learning program packages with many important components. This guidebook is also made to help students achieve specific learning processes or goals. In addition, the guidebook is also a program package guidebook, which is intended for learning purposes.

This study not only determines the process of developing the guidebook but also measures the validity, practicality, and effectivity of the developed guidebook for writing PDSI reports with language error analysis based at SMK-SMTI Makassar. To measure these three elements, researchers use a few techniques. First, the researcher let expert validators validate the developed guide to measure validity. A guidebook is said to be valid if the guidebook can evaluate what should be evaluated (Indah Suryani et al., 2014). Second, to measure practicality, the researcher used a questionnaire given to students. Students then responded to the questionnaire about the developed guidebook. A guidebook is practical if anyone can use it relatively quickly (Musriadi, 2016). Third, to measure effectivity, the researcher used pre-test and post-test techniques. Effectiveness can be seen if it can increase interest and motivation if, after learning, students become more motivated to study harder and get better learning results (Andayani, 2015).

MATERIALS AND METHOD

This study focuses on guidebook development for writing PDSI reports with language error analysis based on Borg and Gall's theory (Supriyono, 2022) about research and development methods. This method aims to develop a new product based on existing products. In this case, the developed product is a learning guidebook for writing PDSI reports with language analysis errors based at SMK-SMTI Makassar. The method used is the Borg and Gall methods, which consists of 8 (eight) stages, namely (1) research and information collection, (2) planning, (3) developing a preliminary form of product, (4) limited field testing, (5) revision of limited field test results, (6) primary field test, (7) revision of main field test result, (8) validation and feasibility test.

This study is divided into three stages. The first is a literature review and language error analysis on PDSI reports to be used as a sample. This stage takes one month to do. The second one is developing the guidebook utilizing the result of the previous stage. This stage also takes one month to do. The last stage is the finalization and validation of the developed guidebook. This stage takes two weeks to do. So, the overall time to conduct this study is two months and two weeks.

The research participants in this study were divided into three. The first one is 42 teachers as PDSI guide teachers. This teacher will be interviewed to collect data on the needs analysis. The second one is two experts that act as validators: the first one is an expert on the implementation of PDSI, and the second one is an expert on writing reports. The third one is 50 students majoring in industrial chemistry and quality assurance. Twenty-five students are needed per major because it represents the students in one class at SMK-SMTI Makassar.

The data of this research is divided by three sources. The first source is needs analysis. Data obtained from this source is every information needed to develop the guidebook. This data is taken from grade XII students and PDSI mentors. The second data source is product development data. Data obtained from this source is information related to guidebook development from need analysis and guidebook development theory. The third data source is validation test data. Data obtained from this source is the result of a validation test. The obtained data was then analyzed using quantitative-descriptive and qualitative-descriptive techniques. The quantitative-descriptive technique systematically arranges the form of numbers or percentages regarding an object under study.

Meanwhile, the qualitative-descriptive technique analyzes descriptive verbal data from experts. Verbal data was analyzed qualitatively; meanwhile, expert and field tests were analyzed quantitatively using a data analysis approach, starting by collecting data, transcribing verbal data,

selecting and classifying data, and then analyzing and concluding data. Both the qualitative and quantitative data are described so that general conclusions are obtained.

RESULTS & DISCUSSION

The development of the PDSI report writing guidebook based on language error analysis at SMK-SMTI Makassar was carried out using the Borg and Gall model with eight stages, namely (1) research and data collection, (2) planning, (3) initial product development, (4) limited field testing, (5) revision of limited field test results, (6) primary field test, (7) revision of main test result, (8) validation and feasibility test. Borg and Gall explain that what is meant by the research and development model is "a process to develop and validate educational products," which can be interpreted as a process for developing and validating educational products (Supriyono, 2022).

In this first stage, the researcher analyzed the need to develop a PDSI report writing guidebook based on language error analysis at SMK-SMTI Makassar. The needs analysis obtained by researchers included (1) students were not used to writing using computers/laptops, (2) students were not used to writing using good and correct Indonesian and standard grammar, (3) there were no guidelines governing the rules PDSI report writing by standard grammar. Based on some of these needs analysis, it is necessary to have guidelines for writing PDSI reports based on language error analysis at SMK-SMTI Makassar. In addition to conducting a needs analysis, the researcher also conducted a literature study regarding language errors, as stated by Tarigan, which classifies language errors based on linguistic components or certain linguistic elements that are affected by errors or based on both (Tarigan, 2021). In addition, the authors also take several previous research references related to guidebook development and language error analysis. At this stage, the researcher also analyzed language errors contained in the 2021 PDSI report. Several language errors were found referring to Tarigan's taxonomy of linguistic categories, including errors in phonology, morphology, syntax, and semantics (Tarigan, 2021).

The first language error in the 2021 PDSI report is a phonological error, such as a spelling error. The second language error in the 2021 PDSI report is morphological error, such as the usage of prepositions in words. Third language errors are syntax errors, such as sentence structure errors and inaccuracy in the use of conjunctions. The fourth and last language error in the 2021 PDSI report is semantics errors, especially lexicon errors such as the wrong word choice. After analyzing language errors in the 2021 PDSI report, the researcher also validated these preliminary studies. The Principal and Vice Principal in the Public Relations Field of SMK-SMTI Makassar validated these studies. The first expert was chosen because he has already been appointed as the PDSI

team's leader and knows the ins and outs of PDSI and all of the problems. This also happened to the second expert, who pointed to the second validator, who also teaches the Indonesian Language and is relevant to be an expert in this research because of his field of language errors. The result of this validation is a letter of conducting research that states that the developed product in this research can solve the problem and have a significant impact on PDSI report writing.

In the second stage, the researcher formulates research objectives as the first step in this stage. This research aims to produce a PDSI report writing guidebook that meets students' needs and can be used as a reference for writing PDSI reports that are valid, practical, and effective. This has received approval from SMK-SMTI Makassar, with a letter of conducting research signed by the principal of SMK-SMTI Makassar himself. Researchers also estimate the funds, personnel, and time needed to conduct research. This research involves grade XII students as PDSI participants. Funds to conduct research are prattle ing cost of proton type of guidebook developed which,h is Rp25.000,-/pcs. The time needed to conduct research is estimated at 3 months. The first month is used to analyze language errors contained in the 2021 PDSI report, the second is used for developing the guidebook, and the third is used to validate and test the eligibility of the developed guidebook. After that, the researcher also formulated the qualifications of the researcher and the forms of participation from the parties involved in the research. SMK-SMTI Makassar Indonesian Language teacher conducts this research. The first researcher participated in collecting data related to language errors in the 2021 PDSI report. These language errors are then analyzed as guidebook development materials. The second is designing the PDSI report writing guidebook layout based on language error analysis at SMK-SMTI Makassar according to the regulations of SMK-SMTI Makassar and the Ministry of Industry. Third is preparing research instruments, such as a questionnaire, required during the research. Fourth is giving the developed guidebook to be validated by experts, namely teachers with experience in their fields.

In the third stage, researchers design and develop guidebooks. This guidebook is made with A5 paper size, using Arial font type (font size 9) and 1.15 spacing. This is intended so that the guidebook becomes practical and can be used by students. The content and design development of the product, starting from the cover to the materials contained in the guidebook, refers to the concept of guidebook composition that SMK-SMTI Makassar has determined. This guidebook started by analyzing language errors using Tarigan's taxonomy of linguistic categories, including errors in phonology, morphology, syntax, and semantics (Tarigan, 2021). After the analysis result was obtained, the material for the guidebook was created, which are phonological errors such as spelling errors, morphological errors such as the usage of prepositions, syntax errors such as sentence structure errors and inaccuracy in the use of conjunctions, and semantics error especially

lexicon error such as wrong choice of picking the word. After the material was created, development continued by doing the design and layout for the guidebook while also discussing the development process with experts to check if the guidebook was developed correctly as needed.

In the fourth stage, the books designed and developed are then consulted with the supervisor to be reviewed and given some suggestions. After that, the guidebooks that have been developed are immediately validated by expert validators. Expert validators consist of school teachers under the auspices of the Ministry of Industry who have experience in their respective fields. The validator is asked to assess each aspect and provide suggestions on the validation sheet provided. Based on the validation results, it was concluded that the guidebook that had been developed was valid (with a validity value of 86.25% by the first expert validator and 87.5% by the second expert validator).

In the fifth stage, the researcher improves the developed guidebook based on the suggestions and input given by the first and second expert validators. The revisions include (1) providing examples in the appendix, (2) adding guidebook pages, (3) reducing font size, (4) adding essay questions, and (5) adding pictures that interest students. The researcher has made the revisions. Examples have already been provided, pages have already been added, font size has been reduced, essay questions have already been added, and pictures also have been added.

In the sixth stage, the test is conducted online because class XII grade students in the middle of PDSI. The main field test participants were Industrial Chemistry and Quality Control students. This field trial activity was carried out within one week, starting with distributing, collecting, and recapitulating the results of the student questionnaire in the guidebooks that had been developed. This primary field test was carried out to measure the practicality of the guidebooks that have been developed. The first step in this test is distributing a questionnaire using Google Forms to 50 students in total, 25 in each program. The result of this test was used as an indicator to measure the practicality of the guidebook developed. Musriadi (2016), stated that a guidebook is practical if anyone can use it relatively quickly.

Based on the primary field test data conducted on 50 class XII students majoring in Industrial Chemistry and Quality Control at SMK-SMTI Makassar, the guidebook used to increase students understanding has an excellent response value. This can be seen from the average percentage given by students, which is 89.0%. This number is between 86%-100%, so this developed guidebook is suitable for writing PDSI reports. In general, this guidebook does not require revision.

In the seventh stage, the researcher should improve based on the previous stage, namely

the primary field test. However, the developed guidebook generally does not require revision because the guidebook is considered valid and practical. Next, a feasibility test needs to be done to find out whether the guidebook that has been developed is effective in helping students understand material related to writing PDSI reports at SMK-SMTI Makassar.

In the last stage, the validator re-validates the guidebook that has been developed. The researcher followed up on the suggestions and improvements the validator made. After that, the researcher conducted a guidebook feasibility test using the pre-test and post-test. This is done to measure whether the developed guidebook effectively increases student understanding. Students were asked to answer multiple choice and essay questions that had already been provided before using the guidebook. After that, students are given treatment in the form of a guidebook before answering the same question.

Based on the pre-test and post-test results, an average pre-test score of 58,4 was obtained. After students use the guidebook and do the post-test, an average score of 86,6 is obtained. The score increased by 28.2 or 48,29% from the first test. Based on these results, students understanding of writing PDSI reports increased. The developed PDSI report writing guidebook is also likely effective.

CONCLUSION

Based on the research objectives, research results, and discussions described, it can be concluded that the procedure for developing a PDSI report writing guidebook is based on language error analysis at SMK-SMTI Makassar. On the first research question, the guidebook has been developed by using Borg and Gall's developed theory which consists of eight stages, namely (1) preliminary study and data collection stage, (2) research planning stage, (3) development stage initial product, (4) limited field test stage, (5) limited field test results revision stage, (6) main field test stage, (7) revision of main field test results, and (8) validation and due diligence stages. These eight stages have been described in detail. Theoretically, this study is conducted to solve the problem of the lack of students' writing skills, especially in writing PDSI reports.

On the second research question, the validity of the developed guidebook was done at the limited field test stage. Based on the limited field test results, it was concluded that the guidebook that had been developed was valid (with a validity value of 86.25% by the first expert validator and 87.5% by the second expert validator). This makes the developed guidebook declared valid. The practicality of the guidebooks that have been developed is done at the main field test stage. The guidebook can be used quickly based on the primary field test data from 50 class XII students majoring in Industrial Chemistry and Quality Control at SMK-SMTI Makassar. This can be seen

from the average percentage given by students, which is 89.0%. Therefore, the guidebook that has been developed is practical and easy for students to use. The effectiveness of the guidebooks that have been developed is carried out in the last stage, namely validation and due diligence. Based on the pre-test and post-test results, an average pre-test score of 58.4 was obtained. After students use the guidebook and do the post-test, an average score of 86.6 is obtained. The score increased by 28.2 points or 48.29% from the initial test. Based on these results, students' understanding of writing PDSI reports increased. The developed PDSI report writing guidebook is also likely effective. Practically, the developed guidebook can now be used by students of SMK-SMTI Makassar to write their PDSI report and minimize the lack of students writing skills.

REFERENCES

Andayani. (2015). *Problema dan Aksioma dalam Metodologi Pembelajaran Bahasa Indonesia*. Deepublish.

Anggara, M. R. (2020). *Pengembangan Pedoman Penyusunan Laporan Karya Tulis Ilmiah pada Pembelajaran Berbasis Proyek di SMK*. Universitas Pendidikan Indonesia.

Anjarwati, L., & Sabardilla, A. (2021). Analisis Kesalahan berbahasa pada Karangan Siswa Sekolah Menengah Pertama. *Jurnal Pena Indonesia: Jurnal Bahasa, Sastra, Dan Pengajarannya*, *Vol. 7 No. 1*. http://journal.unesa.ac.id/index.php/jpi

Gunawan, H. I., & Retnawati, S. (2017). Analisis Kesalahan Ejaan pada Makalah Mahasiswa Pendidikan Ekonomi Fakultas Keguruan dan Ilmu Pendidikan Universitas Pamulang. *Eduka: Jurnal Pendidikan, Hukum, Dan Bisnis*, *Vol. 2 No. 2*.

Indah Suryani, D., Suhery, T., & Rachman Ibrahim, A. (2014). Pengembangan Modul Kimia Reaksi Reduksi Oksidasi Kelas X SMA. *Jurnal Penelitian Pendidikan Kimia: Kajian Hasil Penelitian Pendidikan Kimia*, *1 No. 1*(1), 18–28. https://doi.org/https://doi.org/10.36706/jppk.v1i1.2380

Kusriyati, E. (2021). *Analisis Kesalahan Berbahasa pada Laporan Hasil Observasi Siswa Kelas X SMA Trensains Muhammadiyah Sragen Tahun 2020/2021*. Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Surakarta.

Musriadi. (2016). *Profesi Kependidikan Secara Teoretis dan Aplikatif*. Deepublish.

Permana, A. (2022). *Pengembangan Modul Pembelajaran Berkarya Seni Rupa 3 Dimensi dengan Media Printer 3D pada Siswa Jurusan Teknik Mekatronika di SMK-SMTI Makassar*. Universitas Negeri Makassar.

Rismandari, A. D. (2020). *Pengembangan Modul Menulis Teks Laporan Hasil Observasi dengan Muatan Tempat Bersejarah di Semarang untuk Peserta Didik Kelas VII SMP*. Fakultas Bahasa dan Seni, Universitas Negeri Semarang.

Suhariyanti. (2020). Ragam Bahasa Tulis: Studi Kasus Kesalahan Penulisan Makalah Siswa Kelas XII SMA Tamansiswa Medan. *Jurnal Edukasi Kultura: Jurnal Bahasa, Sastra Dan Budaya*, *Vol. 7 No. 2*. https://doi.org/https://doi.org/10.24114/edukasi%20kultura.v7i2.22002

Supriani, R., & Siregar, I. R. (2016). Penelitian Analisis Kesalahan Berbahasa. *Jurnal Edukasi Kultura*, *Volume 3 No. 2*, 67–6. https://doi.org/https://doi.org/10.24114/kultura.v1i2.5204

Supriyono, S. (2022). *Research and Development: Model Borg & Gall (Bahan Ajar Revisi)*. https://doi.org/10.13140/RG.2.2.10113.94566

Sutomo, R. F. (2021). *Pengembangan Pedoman Penulisan Karya Tulis Ilmiah Berbasis Android pada Mahasiswa Program Studi Teknologi Pendidikan Universitas Negeri Makassar*. Universitas Negeri Makassar.

Tarigan, H. G. (2021). *Pengajaran Analisis Kesalahan Berbahasa*. Penerbit Angkasa.

Yuda Mahardika, R., Tri Sudrajat, R., & Siliwangi, S. (2018). Analisis Kesalahan Berbahasa pada Pembelajaran Mata Kuliah Sintaksis pada Mahasiswa Prodi Pendidikan Bahasa dan Sastra Indonesia. *Parole: Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, *Vol. 1 No. 1*.