Designing Workbook for Teaching Writing Descriptive Text 
Based on Scientific Approach

Indah Pratiwi¹; Yanti Sri Rezeki²
Faculty of Teacher Training and Education; Universitas Tanjungpura – Indonesia
indah0269@gmail.com¹; yantisrirezeki@gmail.com²

Abstract
This research aims to design workbook based on the scientific approach for teaching writing descriptive text. This research was conducted on the seventh-grade students of SMPN 24 Pontianak. The method of this research is ADDIE (Analysis, Design, Development, Implementation, and Evaluation) with the exclusion of Implementation and Evaluation phases. This material was designed as supplementary material to support the course book used especially in teaching writing of descriptive text. The respondents in this research were the seventh-grade students and an English teacher at SMPN 24 Pontianak. In this research, the researchers found that workbook based on scientific approach fulfilled the criteria of the good book to teach writing descriptive text. The researchers conducted an internal evaluation to see the usability and the feasibility of the workbook. The result of the evaluation is 89%. It showed that the workbook is feasible to be used by students as the supplementary material to support the main course book and help the students improve their writing ability in descriptive text.

Keywords
Workbook, Scientific approach, Teaching Writing, Descriptive Text

DOI: 10.26418/jeltim.v1i2.26969

1. INTRODUCTION
Teaching English has been done by English teacher especially in non-English speaking countries, such as in Indonesia. In the teaching-learning process, course book is the crucial media needed by every teacher in every age for teaching English. It has become an almost universal element of ELT, playing as it does a vital and positive part in the everyday job of teaching and learning of English (Hutchinson and Torres, 1994).
The researchers did the teaching practice at SMP Negeri 24 Pontianak for four months, and thus knew the condition of the book used and the students in the school, especially the class that the first researcher taught; classes of grade VII. After doing observation and interview with the teacher who teaches English in SMP Negeri 24 Pontianak, the researchers found that the course book used is When English Rings a Bell and the exercise book used is LKS entitled Pakar from CV Aviva. The researchers also found that both books have many problems. The explanation in the course book is too short, especially for descriptive text material. The course book only focuses on giving conversation and question about what have been discussed in the conversation. There is no explanation on how to use this and that, these and those, and possessive form that is stated in the syllabus. The course book also provides the material that is unfamiliar for the students in that school, like someplace in Java. The teacher chooses to use an exercise book to support the course book. Unfortunately, it has so many grammatical mistakes and provides only little exercises about writing descriptive text. Those problems make the students find difficulties in understanding the material and develop their writing skill. Those problems give the idea that teacher still has to work hard to solve the problems.
Workbook is students’ book of problems to be solved directly on the pages. It is a printed material accompanying a course book that contains exercises, problems, and practice material to clarify and reinforce the lessons presented in the textbook. Furthermore, it provides information on the quality of teaching and learning, and what the teacher and students can do to improve the standard of their performance. A scientific approach is a new approach which is proposed by the Government in implementing the 2013 curriculum. This approach concerns to acquire knowledge based on physical evidence. It influences the material to be in real context. Designing the workbook based on the scientific approach is a good decision to support the teaching-learning process. The workbook designed should be based on four elements of scientific approach, those are observing, questioning, experimenting, associating, and communicating/negotiating. Each activity should be
matched with each element and based on physical evidence. This research is in line with the previous research conducted by Prabowo (2016) at the English Department of Teacher Training and Education Faculty Muhammadiyah University Purwokerto. His thesis is Designing ELT Supplementary Material Based on Scientific Approach in Teaching Writing (A Development Research on The Eighth Grade Students of SMP 1 Abdi Negara Purwalingga in Academic Year 2014/2015). The result of the study shows that after the treatment, there is a difference in the students’ achievement in writing descriptive text. He concluded that the scientific approach gave the positive effect on students’ ability in writing descriptive text. Moreover, it could be concluded that the scientific approach was more effective than teacher explanation strategy. Using a scientific approach also increases students’ motivation and students’ participation during teaching and learning process and also it can develop classroom atmosphere to be more bright and fun.

This study is also in line with the previous research conducted by Desmayeni (2012) at the English Department of Teacher Training and Education Faculty Lampung University. Her research focused on the implementation of task-based learning method in writing descriptive text which has the similarities with a scientific approach. The objectives of this collaborative classroom action research were to find out how Task Based Learning can improve the students’ participation and writing ability in writing descriptive text. The result of the research showed that there was better improvement of the students’ participation and writing ability.

In another research conducted by Purwanto (2017) a listening workbook using TBLT approach was designed. TBLT approach has similarities to scientific approach. The result showed that the workbook is good to be used in the real environment implementation because the approach is suitable for the real-life situation.

In short, the researchers concluded that the workbook based on scientific approach has a big role to support the available books and can be the solution for problems faced by students in writing descriptive text and teachers who find it hard to make students understand the writing lesson in the class.

2. METHOD

Design of Research

Research and development is a method which is used for this research. It is a process used to develop and validate the educational product. The product can be such things as textbooks, instructional films, computer software, and methods, such as a method of teaching, and programs, such as a drug education program or a staff development program.

In other books which are written by Richey and Klein (2007), it is stated that “development research is the systematic study of design, development and evaluation processes with the aim of establishing an empirical basis for the creation of instructional products, tools and new or enhanced model that govern their development”. This research seeks to create knowledge grounded in data systematically derived from practice. It is a way to establish the new product, model, procedures, techniques, and tools based on a methodological analysis of specific cases.

In this research, the researchers used Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model to create the workbook for teaching writing descriptive text. Nevertheless, the researchers focuses on doing three phases only; analyse, design, and develop (ADD) due to the time limitation in conducting the research.

Procedure of Research

There were some steps done in developing the product. The steps of the ADD model can be seen as follows.

a. Analyse

In the Analysis phase, the goal of the products was set. Before the analysis phase, the researchers observed the students in the classroom and then interviewed the English teacher. It was used to find the information about students’ condition, the situation in the classroom, and facilities for teaching English in the school. After getting the information, the researchers started to analyse the problem and found the solution to overcome it.

b. Design

In the Design phase, the researchers started to investigate the requirement, structure, content, and the criteria of the workbook and then selected the materials to make the first draft of the workbook which is oriented to the textbook entitled When English Rings a Bell. After that, the researchers made the exercises connected to the material in the textbook and scientific approach which is used in curriculum 2013.

c. Develop

In the Development phase, the researchers made modification to the workbook to achieve the learning objectives that have been determined. The researchers did an internal evaluation, revised and re-evaluated and revised the workbook to get the best result and then give the feasible designed workbook to the students.

Subject of Research

The participants for this research are the seventh-grade students of SMPN 24 Pontianak and the English teacher for needs analysis.

Techniques of Data Collection

In conducting this research, the researchers used observation, interview, questionnaire and internal evaluation. Observation and interview were used in the analysis phase to know the existing materials and both the teacher and students’ needs about the materials in teaching and learning process. In doing the evaluation, the researchers used internal evaluation adapted from some experts to get the assessment to complete the evaluation of the technical and development of the workbook. An assessment rubric was used to evaluate and validate the material to see whether or not it is usable and appropriate to support the learning process.
**Tools of Data Collection**
Based on the technique of data collection, the researchers collected the data of interview using questionnaire and internal evaluation using assessment rubric adapted from Dickinson (2010), Mukundan (2012) and McDonough and Shaw (2003). The evaluators in this research were the researchers.

**Data Analysis**
In the technique of data analysis, the researchers analyzed the result of need analysis in Analysis phase and the result of the internal evaluation. Both data of the Analysis phase and internal evaluation were analyzed using the formula below to get the percentage of each coding.

<table>
<thead>
<tr>
<th>Coding Frequencies</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Undecided/ Standard</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1. Coding frequency

To get the percentage of evaluation, the data was analyzed by rating scale. Adapted from Harry Walker’s instrument (2013), the rating scale was scored by the formula below:

\[ P = \frac{\sum X}{\sum i} \times 100\% \]  \hspace{1cm} (1)

P=Percentage  
\( \sum X = \) Result score  
\( \sum i = \) Amount of point X amount of categories

And then continued with this formula:

\[ v = \frac{\sum p}{n} \] \hspace{1cm} (2)

\( \sum p = \) Total of percentage  
\( n = \) Amount of point

**3. RESEARCH FINDING AND DISCUSSION**

**Findings**
The goal of this research is to design and develop workbook based on a scientific approach for teaching writing descriptive text to the seventh-grade students. In order to reach the goal, the researchers had to conduct a needs analysis, make the design or concept based on the data that were already gathered, and develop the product. The following sections present the findings of each process.

1. The Requirements of the Workbook  
a. Analysis of Students’ Condition  
This research is conducted for the seventh-grade students in the second semester at SMPN 24 Pontianak. There were 36 students in this class. The learning process started at 07.00 a.m. and ended at 12.30 p.m. The students’ average ages were between 11-13 years old.

From the classroom observation, there were some problems with the students. Firstly, most of the students did not give good responses to the learning process. The students liked to run around the class, disturbed each other, and chatted with friends all the time. The students did not seem to be interested in the materials provided in the course book.

Secondly, the students lacked the ability in writing the text. Most of the students wrote the sentences using Indonesian pattern. It made confused and misunderstanding of the text that they wrote. Besides that, the students also had difficulties with vocabularies. It made teaching and learning process not effective because the students asked word by word to the teacher.

b. Analysis of Teacher’s Condition  
In this observation, it was found that the teacher used the lecture method in teaching and learning process. It made the students difficult to understand the materials. From the interview with the English teacher in SMPN 24 Pontianak, the teacher used a course book and exercise book for teaching descriptive text to the students. He said that he had to use the course book because it was already given by the school. He did not want the course book given would be useless.

c. Analysis of the Students and Teacher toward Workbook  
From the interview with the students, the researchers obtained several information about the students’ perception toward the workbook. First, almost all students were familiar and knew how to use and the advantage of the workbook. Second, almost all of the students agreed to use it because it can be used at home if they cannot come to the class.

Based on the interview with the teacher, he already realized the use and the benefit of the workbook as they used an exercise book to support the course book. The teacher and the students’ responses on the workbook were good. They were more interested and motivated to learn when the teacher uses the workbook which provides exercises that are interesting and related to their real life.

Based on the data above, it can be concluded that the use of workbook based on scientific approach is possible to support the students to learn. This is because all students already know the advantages and feel interested to use the scientific approach.

d. Analysis of Syllabus and Course Book  
The curriculum used in this school was curriculum 2013. The standard competence in writing for seven grade students in the second semester is understanding the very simple meaning of written functional text and a short essay in form of descriptive and procedure to interact with the nearest environment. The textbook used in the classroom is “When English Rings a Bell” which was published by Pusat Kurikulum and Perbukuan Kementerian Pendidikan dan Kebudayaan. The book was arranged by Siti Wachidah, Asep Gunawan, Diyantari, and Yuli Rulani Khatimah. The teacher also used exercise book from CV Aviva entitled Pakar by Erni Riyanti.
Based on the observation, the books provided some various activities in improving English skills, it focuses on describing something through conversation but there is less vocabulary learning which is actually needed by all the students. Besides that, there were some descriptive texts that were not suitable for students in Pontianak. The descriptive texts were about the place in Java that is unfamiliar for students and some vocabularies were difficult for students. There were also some grammatical mistakes in the exercise book, for example in the use of the possessive word, the researchers wrote with the wrong word, “what is she name?” which should be “what is her name?”. This is a concern that needs attention, thus the reason for this study.

2. The Criteria of the Workbook
a. Narrowing the Focus
In this phase, the researchers designed the first draft of materials based on the needs analysis data, the result of the interviews as well as the analysis of the document and the syllabus. Based on Richard and Rodgers (2001), design is the level of method analysis in which we consider (1) what the objective of the method is; (2) how language content is selected and organized within the method, that is, the syllabus model the method incorporates; (3) the types of learning task and teaching activities the method advocates; (4) the role of the learners; (5) the role of the teachers; (6) the role of instructional material.

b. Creating essential parts of workbook
To complete the workbook, the researchers decided to create essential parts of the workbook such as cover, table of content, and user’s guide by using Canva. In this case, the researchers found that based on Dickinson (2010) the cover needs to be in a brighter color and present attractive pictures. This way, the researchers changed the previous cover designed by using Microsoft Word with the new one which is blue in color and with some colorful pictures by using Canva. The researchers found Canva provides various cover with attractive design that helps the designer a lot. The cover of the workbook can be seen in picture 2.

Picture 1. Cover of the workbook
(1) Table of contents
In the table of contents, the researchers provided three chapters of descriptive text and also the page number to make it easier to find the material.

(2) User’s guide
In this case, the researchers created a user guide in the Indonesian language by considering the students’ background in English proficiency level from the previous school which is at a low level. The user’s guide explains how to use the workbook as writing descriptive text media, including what to do and what not to do.

(3) Creating the material
In the development phase, the researchers developed the ELT material by using Microsoft word and considering elements of the scientific approach.
In the first and second elements namely observing and questioning, the researchers provided some exercise focusing on vocabulary which is gained from the conversation provided in the course book “When English Rings a Bell”.

(2) Choosing software
The researchers decided to use Microsoft Word and Canva as the software because first, this software is the commonly used for making the illustration for beginning illustrator. Second, this software is fully supported by additional fonts and brushes which really helped in developing the workbook. Third, because the researchers have already mastered the software, it would be less consuming in making the illustration.

4. The Design
a. Finding software as a tool for designing the workbook Canva is a software which provides the user some tools to design a book, poster, magazine, etc. This software is easy to find and easy to use. Instead of downloading it, the user can find it in Google by clicking www.canva.com and use it directly.

b. Creating essential parts of workbook
In the development phase, the researchers decided to use Microsoft Word and Canv to design a book, poster, magazine, etc. This software is easy to find and easy to use. Instead of downloading it, the user can find it in Google by clicking www.canva.com and use it directly.
Pictures 2. Sample of the content
In the experimenting phase, the researchers provided some exercises focusing on the students' experience to analyse the text and experimenting on writing to describe something with the guided question provided.

In the associating phase, the researchers found that apparently, providing the exercises only are not really effective. With regards to the problems found in course book which has limited explanation, the workbook designed should provide the short explanation to help the students understand the material easier. In this phase, some exercises were focused on analysing pictures and text. It is aimed to make the students understand more how to write a descriptive text.

In the last element, that is networking phase, the researchers gave the instruction for the students to write down the descriptive text by themselves without guided question and based on the theme decided. The researchers then found that providing the same kind of exercises in each chapter is not really good. This is good for learners who like the familiarity of such a structured exercise, but not so good for those who prefer more variety.

(3) Providing answer key
For helping the students to do independent learning, the researchers made the answer key in the last page of the workbook so that the students can use the workbook not only in school but also in their free time like in their home.

5. The Evaluation of the Product
a. Internal Evaluation Based on Dickinson, Mukundan and McDonough & Shaw.
These are findings found while evaluating the product in the process of development more specifically by adapting material evaluation by Dickinson (2010), Mukundan (2012) and McDonough & Shaw (2003).
(1). The cover of the design
The color used in each unit and lesson is very attractive and colorful. The researchers chose blue for the dominant color in the cover. The researchers put the title, the target learners, the writer and also the supervisors to make it clear.
(2). Typing and font
Typing and font used in the workbook are various. Sometimes the researchers used Times New Roman, Calibri, Comic San and etc to make it more interesting. It is also supported by the choice of various colors. The typing is very well-typed, neat and regular because the researchers already checked on the consistency. The researchers also paid attention to the font. The font is readable in term of the choice and size. It is not too small and not too big. The researchers used font 12 which is the standard font size for a book.
(3). Spacing
The spacing is very appropriate and consistent because the researchers made it so for each unit.
(4). The layout
The layout of this workbook is clear and attractive. The layout and design of the materials reflect a very structured approach. There is a clear structure and consistency in appearance throughout the student’s book with each unit following the same basic pattern of presenting a descriptive text.
(5). The Curriculum and Syllabus
The workbook is in relation to syllabus and curriculum and matches the syllabus specification. It can be seen from the title of each chapter which is followed the syllabus; Things Around Us for describing things, People Around Us for describing people, and Places Around us for describing places. In addition, the researchers also considered the exercises to follow the rules in the syllabus. Those are about wh-question, the use of simple present time, this, that, these, those, and possessive forms.
(6). The language features used
The language features used are in correct order. For example, the use of simple present tense, adjective, etc. This part is vital because the goal of the workbook itself is to guide and help the students to be able to write descriptive text with the correct order including in using the language features.
(7) The activities
The activities are exactly related to the scientific approach. The researchers already made sure about it by following the instruction of Kemendikbud (2013) about what kind of tasks can be given in each element of the scientific approach. The activities are also related to the descriptive text material and writing skill. The activities are suitable for the target learners and sufficiently described. The last, the activities are well graded, they move from simple to complex.
(8) The direction
The direction is clear, understandable, and appropriate. It can be seen in each activity provided in the workbook.
(9) The vocabulary
The units cover adequate tasks related to the vocabulary used in daily communication and real-life situation. The load (number of new words in each lesson) is appropriate to the level and in a good distribution.
(10) The choice of pictures
The pictures are interesting, clear, bright and suitable for the target learners. The pictures are related to the descriptive text material. For example, in unit one, the pictures are the familiar things such as book, shoes, umbrella, etc.
(11) The coverage of the descriptive text material
The coverage of the descriptive text material is relevant to the students’ need and syllabus used. It is also relevant to the aspects of writing skill.
b. Internal Evaluation of Scientific Approach Availability in the Workbook
There are five elements of scientific approach namely observing, questioning, experimenting, associating, and networking/communicating.

ISSN 2567-1617 | 63
Discussion

The researchers designed the workbook in this study because of the learning problems found in the course book and exercise book used in the seventh-grade students of SMPN 24 Pontianak. As the result, the researchers provided a solution for those problems that is the use of workbook based on a scientific approach as media to support writing descriptive text for the students. The method of this research consists of several phases; they are analysis phase, design phase, and development phase (Branch, 2009).

In the analysis phase, some of the learning problems were gathered by observation and interview with the English Teacher. The basic information which was gained included the background of the students and teacher which focused on learning how to write descriptive text in the classroom, the condition of the school in supporting teaching and learning process, and the syllabus used by the teacher in conducting the lesson. From the analysis phase, the researcher found that the material design which was developed using five elements of scientific approach has a relationship with the curriculum used in SMPN 24 Pontianak.

The design phase was conducted based on the analysis phase. The material was collected and selected based on curriculum 2013 and the syllabus (Richard, 2001). The topic of descriptive text for seventh-grade students in the second semester is “describing things, describing people, and describing places”.

Development phase was the next thing considered in conducting the research. The development phase continued with the design phase to the real face of the workbook itself. In this phase, the researchers constructed the material which had been selected and gathered from many sources. The constructed materials were suited based on learning objective which comes from syllabus and curriculum. Meanwhile, the constructed material should be grounded on the principle of the material design.

From the result of the internal evaluation process in the development phase, the researchers also had checked the characteristics used to develop the material namely elements of the scientific approach. Those five elements of scientific approach are already implemented in the workbook, as the idealism of the researchers, are observing, questioning, experimenting, associating and communicating.

Furthermore, the design of the ELT material done by the researchers completed the quality standards as suggested by Dickinson (2010), Mukundan (2012) and McDonough & Shaw (2003). These findings are in line with the research conducted by Indahtriayani (2015) at Masters Study Program of English Language Education, Teacher Training and Education Faculty, Tanjungpura University, Pontianak. Her research is titled “The Scientific Approach in Teaching Writing by Using Guided Writing Based on Curriculum 2013 (A Classroom Action Research to the tenth-grade students of Computer and Networking Program of SMKN 1 Bengkayang in Academic Year 2014/2015). The result of the research shows that guided writing could improve the students’ writing skill. Through guided writing, the students showed great interest and actively involved in the teaching and learning process.

In summary, based on the main findings gained from internal evaluation, the score of the evaluation was 89% and supported by the previous studies and also theories. Thus, this workbook was considered as very good which means that the content was able to support descriptive text materials, appropriate to students’ level and in line with the syllabus.

4. CONCLUSION AND SUGGESTION

Conclusion

The workbook which was designed by the researchers was focused on exercises of descriptive text. All exercises in the workbook are based on five elements of the scientific approach. Those elements are observing, questioning, experimenting, associating and communicating/networking.

The questions of this research have been answered completely from analysis until the development phase. Based on the result of internal evaluation supported by adapting the material evaluation of Dickinson and Mukundan, the researchers obtained the score that is 89% which is categorized as very strong. This means that the workbook is feasible for being used in SMPN 24 Pontianak grade VII semester 2 and other schools which have the same problems or needs.

Suggestion

As a conclusion, these are the suggestions from the outcome of the study:

1. The English teachers are suggested to design and develop their English teaching materials for the need of their teaching.

Table 2. Workbook evaluation sheet of Scientific Approach

<table>
<thead>
<tr>
<th>No.</th>
<th>Elements of Scientific Approach</th>
<th>Availability</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Observing</td>
<td>Yes</td>
<td>(p. 1-3, p. 8-10, p. 17-19)</td>
</tr>
<tr>
<td>2</td>
<td>Questioning</td>
<td>Yes</td>
<td>(p. 1-3, p. 8-10, p. 17-19)</td>
</tr>
<tr>
<td>3</td>
<td>Experimenting</td>
<td>Yes</td>
<td>(p. 3-4, p. 11-14, p. 18-23)</td>
</tr>
<tr>
<td>4</td>
<td>Associating</td>
<td>Yes</td>
<td>(p. 4-7, p. 14-15, p. 23-24)</td>
</tr>
<tr>
<td>5</td>
<td>Networking</td>
<td>Yes</td>
<td>(p. 7, p. 16, p. 25)</td>
</tr>
</tbody>
</table>

ISSN 2567-1617
2). In designing the workbook, the researchers should be knowledgeable to operate a specific kind of application such as Canva and other software to create a more interesting and attractive application.

3). The researchers should make the scheme of the workbook in order to ease the concept of the workbook.

4). Future researchers should pay more attention to scientific approach because it is very good and already proven by many researchers.

5). To continue the steps of ADDIE that were not used to get more feedback and better product in the future.

5. BIBLIOGRAPHY


Fitrianto, B., Ikhsanudin, I., Fergina, A. (2015) Designing samples of reading material on factual recount text based on the elements of CTL approach as supplementary English teaching materials for students at MTs Al-Rahmah Sekadau Hilir. Jurnal pendidikan dan pembelajaran UNTAN.


Purwanto, D., Ikhsanudin, I., Susilawati, E. (2017). Designing a listening workbook using TBLT approach for marketing students of SMK. Jurnal Pendidikan dan Pembelajaran UNTAN Vol. 6 No. 6, Juni 2017
