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**RESEARCH ARTICLE**

## The Development of Non-Fiction Text Books for Class XI Vocational High Schools Based on the *Cooperative Integrated Reading and Composition Learning Model*

Pertiwi Nurfebrianti<sup>1</sup> ✉ and Hartono<sup>2</sup>

<sup>1,2</sup>Postgraduate Program, Faculty of Languages and Arts, Universitas Negeri Yogyakarta, Indonesia

**Corresponding Author:** Pertiwi Nurfebrianti, **E-mail:** [pertiwi0227pasca2016@student.uny.ac.id](mailto:pertiwi0227pasca2016@student.uny.ac.id)

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**ABSTRACT**

This study aimed to: (1) produce textbooks for reading comprehension of non-fiction texts for class XI SMK based on the *Cooperative Integrated Reading and Composition* learning model, (2) describe the results of the product validation of reading comprehension textbooks of non-fiction for class XI SMK based on the *Cooperative Integrated Reading and Composition* learning model by experts and teachers, and (3) describe the results of the assessment of the non-fiction textbook reading comprehension of class XI SMK based on the *Cooperative Integrated Reading and Composition* learning model by students. This development research used the ADDIE development model (Analysis, Design, Development, Implementation, and Evaluation), which consists of five stages: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation. The needs analysis was carried out at three schools in the city of Yogyakarta, namely SMK Negeri 4 Yogyakarta, SMK Negeri 6 Yogyakarta, and SMK Perkebunan MM 52 Yogyakarta. Product validation was carried out by one expert lecturer and three teachers. The product trial was conducted on 52 students of class XI at SMK Negeri 6 Yogyakarta. The data collection techniques used questionnaires and interviews. The data collection instrument used a needs analysis questionnaire, a list of interview questions, a validation sheet, and a student response sheet. The data analysis technique used descriptive and quantitative analysis. The scale used is a Likert scale with a scale of 1-5. The results of this study produced a product in the form of a textbook reading comprehension of non-fiction texts for class XI SMK based on the *Cooperative Integrated Reading and Composition* learning model. This non-fiction reading comprehension textbook was developed based on the 2013 revised 2017 edition of the curriculum, which consists of procedure texts, explanatory texts, lecture texts, and review texts. Textbook products were printed in the form of package books. Based on the results of expert and teacher validation, this textbook was declared feasible to be used as teaching material for learning to read in the classroom. The expert gave a score of 4.06 in the "good" category, while the teacher gave a score of 4.35 in the "very good" category. Based on student responses, the book received a score of 4.04 in the "good" category.

**KEYWORDS**

Textbook, Reading Comprehension, Nonfiction Text, Cooperative Integrated Reading and Composition Learning Model

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**1. Introduction**

Learning of Indonesian subjects in schools is divided into two competencies, i.e. language and literature competencies. It involves more than one language skill that must be mastered in addition to reading. Reading activities are not only limited to sounding language symbols with a loud voice. Reading actually involves a thought process in which the reader engages in the mental process of knowing information, learning, and understanding new things that are not yet known (Sutarsyah, 2015: 9).

In line with the statement above, Zuchdi (2012: 3) states that there is one thing agreed upon by all reading experts, i.e. reading activities must reach the stage of understanding. In addition, there are also various types of reading that must be taught in school,

including loud reading, reading comprehension, and reading aloud (Nurgiyantoro, 2016: 392). The purpose of reading, in general, is to dig up information in explicit and implicit readings. However, the most important thing in reading is understanding the content of the reading. Furthermore, students associate the contents of the reading with previous experiences so that they have good reading comprehension.

In learning to read at school, there are two types of text in the textbooks used, i.e. fiction (literary) text and non-fiction (non-literary) text. In the Indonesian textbooks for the SMK level for class XI, the amount of non-fiction text material is more than fiction/literary texts. However, in reality, learning to read is still less attractive because students are lazy to read. Some students find it difficult to understand the reading when they find new vocabulary in the text. In addition, students prefer reading fiction texts, such as short stories, poetry, plays, fables, legends, and novels. Topping (2015: 353) states that there are many studies that report that non-fiction books are often underutilized in the classroom. The imbalance of reading materials read by students results in a lack of student knowledge about non-fiction text material. Lack of interest and motivation to read causes students' reading skills to decline.

This is evidenced by the PISA (Program for International Student Assessment) research related to the literacy rankings of countries around the world. PISA research in 2009 states that Indonesia has a low reading comprehension ability, with a score of 402. This makes Indonesia ranked 54 out of 65 participating countries (EOCD, 2009: 56). In the next PISA study in 2015, the country of Indonesia experienced a significant decline in reading ratings. The reading score obtained is 397, with a rank of 61 out of 123 countries that participate in reading activities (EOCD, 2015: 151).

The results of these studies have an impact on the world of education in Indonesia. Therefore, the government evaluated reading learning activities and started to launch the School Literacy Movement (*Gerakan Literasi Sekolah/GLS*) program. The program aims to improve reading comprehension every day at school because students have to keep a reading journal after reading. Reading is done 15 minutes before the lesson begins. Students are allowed to read different types of text to improve their reading knowledge and understanding. The existence of this GLS program is expected to improve the culture of literacy in schools.

In observation activities carried out before the Covid-19 pandemic, there are still various obstacles in the process of reading activities. SMK students tend to focus on skills in their respective expertise programs to the exclusion of compulsory subjects. Students consider reading learning activities to be very boring because the text that is read is too long and has many types. The atmosphere of the classroom environment is not conducive, so it does not support reading learning. After reading, the teacher gives assignments to students to discuss in groups and work on the questions in the textbook. Students must reread nonfiction texts to identify the information in the text and analyse the text.

Other obstacles also arise due to classroom learning being disabled for approximately one year due to the Covid-19 pandemic. Learning in schools is currently done through online distance learning. Distance learning based on information and communication technology is called online learning. Teachers and students carry out teaching and learning activities using learning media in the form of WhatsApp, Google Classroom, Zoom, Google Meet, etc. The change in the learning system makes teachers and students experience difficulties. This is because online learning makes it difficult for teachers to monitor student attendance during learning. Teachers must also learn to operate new applications for learning. Schools must also provide training and keep up to date with the latest information to keep up with the times.

To overcome increasingly difficult conditions, researchers are still trying to provide innovation in learning to read by trying to develop textbooks for learning to read in class, both in the form of printed books and soft files in pdf form so that they can be accessed by teachers and students during this pandemic.

Based on interviews conducted with Indonesian language teachers in vocational schools, it can be seen that teachers do not yet have textbooks to read non-fiction texts according to the needs of vocational students, which are certainly different from high school students in general. So far, teachers have used learning resources in the form of textbooks provided by the government. There are no textbooks that focus on one language skill and integrate a learning model for non-fiction texts. This creates a serious problem. Therefore, it is necessary to develop a special textbook for reading non-fiction texts based on the CIRC learning model for vocational students.

In a review of 203 studies related to text comprehension, the National Reading Panel via Zarei (2012: 163-164) has identified six strategies that are more effective in improving reader comprehension, namely comprehension monitoring, cooperative learning, graphic organization, question and answer, story structure, and summary. The CIRC learning model uses most of these methods to practice reading comprehension skills. The CIRC learning model is a method that can be used as a whole to teach reading, writing, and language arts lessons at a higher level in elementary school (Slavin, 2016: 200).

This learning model requires students to form study groups to discuss in understanding the contents of the reading and think critically to solve problems together. The purpose of forming groups in this learning is for students to work together to help each other between students. Students will get help from their study groups if they find it difficult. However, each student is responsible for his or her role in the group.

The development of textbooks for reading non-fiction texts based on the CIRC learning model is expected to make it easier for students to understand the contents of reading various kinds of non-fiction texts. The resulting textbook focuses on one skill that is integrated with a learning model that is expected to create innovation for students in non-fiction reading activities.

## **2. Methodology**

This study used the type of research and development (Research and Development) with the ADDIE model. This model was developed by Robert Marbie Branch with modifications to the following six stages. (1) *Analysis* related to the analysis of the product requirements to be made; (2) *Design* related to the activities of designing products according to user needs; (3) *Development* related to product development activities in accordance with the designs that have been made; (4) *Validation* related to product validation activities carried out by experts; (5) *Implementation* related to the activity of testing the use of the product to users; and (6) *Evaluation* related to activities providing suggestions and criticisms related to deficiencies or errors in the products made (Sugiyono, 2015: 38).

The subjects in this study were students of class XI SMK Negeri 6 Yogyakarta with a sample of two classes. The number of students who became the subject of as many as 64 students. In addition to class XI students, the subjects in this study consisted of one expert lecturer and three Indonesian language teachers as validators. The data collection instruments consisted of a questionnaire sheet for analysing teacher and student needs, teacher and student interview question sheets, expert and teacher validation sheets, and student response sheets. The techniques used in data collection in this study were interviews and questionnaires. In this research and development, there were two types of data used, i.e. quantitative data and qualitative data.

## **3. Result and Discussion**

### **3.1 The Needs Analysis Results**

The results of the needs analysis questionnaire showed that teachers need textbooks or modules that specifically contain non-fiction texts for learning to read. Based on the results of interviews, in the process of learning to read, the teacher also encountered several obstacles, including students not being enthusiastic about reading when they found long texts and the topics were not in accordance with their expertise program. In relation to school regulations that did not support reading learning to the stage of reading comprehension, SMK students did not prioritize reading skills but only skills according to majors. In addition, students only made a summary of 1-2 sentences when given the task of making a reading report, so the contents of the report are incomplete.

The textbooks used by teachers when teaching in class are in accordance with the 2013 curriculum. However, there was a different opinion from another teacher who stated that the textbooks from the government were not in accordance with the needs of SMK students. The textbooks used by vocational students are currently the same as high school students. Whereas the KI and KD of vocational students are different from high school students. Therefore, the learning objectives in the textbook were not in accordance with the KI and KD of SMK students.

The results of the needs analysis questionnaire showed that students need textbooks or modules that specifically contain non-fiction texts for learning to read. Based on the results of interviews, the obstacles that students experienced when reading include environmental conditions that were not conducive, the language in the text was difficult to understand, the text without illustrations made it boring, many new terms or vocabulary that students had never heard of, and the topic of the text was less liked by students.

Students felt bored if the text they read was too long. In addition, the time for reading was very limited, so students felt they had not finished reading. Some of the other students did not feel bored reading because they really liked reading. After the students read the text in the textbook, the teacher explained the material first and then gave the task for group discussion and presentation in front of the class. However, there were also teachers who did not review the material being studied by students and immediately gave group assignments because they thought that students already understood the material. In addition, students also did not ask questions when asked by the teacher, and the learning time was also very limited, so the teacher should complete assignments more quickly for students to do.

### 3.2 The Product Planning and Development

Based on the results of the needs analysis, it could be seen that textbooks are needed by teachers and students; then choosing one of the four language skills, i.e. reading. From the various types of reading, the type of reading comprehension was chosen for the XI grade SMK level.

The researcher chose an appropriate learning model to collaborate with reading skills that made it easier for students to understand the contents of the reading. Cooperative learning is one method that can be used. Of the various types of cooperative learning, the learning model that matches reading comprehension is the CIRC learning model. There were 8 stages of the CIRC learning model, including (1) creating reading groups; (2) make the team read; (3) reading in pairs; (4) analyse the structure and rules of language; (5) restate the text orally; (6) re-examine reading comprehension activities; (7) reading comprehension test; and (8) independent reading and making reading reports. This learning model made it easier for students to read in pairs so that when there was an error, it could be corrected by a group of friends. In addition, at the end of this learning model, there were stages of making independent reading reports so that students were still given assignments independently after discussing them with their friends at school.

The last stage was to choose the text that would be used as material in the textbook. The selected text was a non-fiction text for class XI SMK students. The texts included explanatory texts, procedural texts, lectures, and reviews. Additionally, the creation of books was also based on the 2013 curriculum as well as KI and KD SMK so that later it was in line with student learning objectives.

### 3.3 The Feasibility Test of the Product

The product feasibility test could be seen from the results of product validation by experts, Indonesian language teachers, and student responses.

Table 1. Overall Validation Results

Validators and Students	Score	Category
Expert	4,06	Good
Teacher	4,35	Very Good
Students	4,04	Good
Sum	12,45	
Average	4,15	Good

Expert validation was carried out by an expert lecturer using a product feasibility validation sheet. Product validation was based on four aspects of feasibility, i.e. material feasibility, presentation feasibility, language feasibility, and graphic feasibility. Thus, the average obtained from the four aspects is 4.06 in the "good" category.

Product validation was also carried out by three Indonesian language teachers using a product feasibility validation sheet. After being assessed by the teacher, an average score of 4.35 was obtained in the "very good" category.

After the textbook products were validated by expert lecturers and Indonesian language teachers and had been revised based on criticism and suggestions, the textbook products were ready to be tested on students. After the students filled out the response sheet, the average score was 4.04 in the "good" category.

Thus, a textbook on reading comprehension of non-fiction texts based on the CIRC learning model for SMK students with an average score of 4.15 was categorized as "good" and "appropriate" to be used as teaching materials for learning to read in class.

### 3.4 The Textbook Product Development

In the analysis phase, the researchers conducted a needs analysis of teachers and students. The needs analysis was done by distributing questionnaires and interviews. The questionnaire was filled out by 162 students and 3 Indonesian teachers from three schools from SMK Negeri 4 Yogyakarta, SMK Negeri 6 Yogyakarta, and SMK Plantation MM 52 Yogyakarta.

Then, interviews were conducted with 9 students and 3 Indonesian teachers from the three schools. The results of the needs analysis questionnaire and interviews stated that students and teachers still encountered obstacles during learning.

Students had difficulty understanding reading due to a lack of mastery of new vocabulary. In addition, the type of text and the topic of the text also affected students' interest in reading. Furthermore, the obstacles experienced by the teacher were caused by

the limited time to read to the stage of understanding the contents of the reading. The teachers also did not have teaching materials that support improving the reading comprehension of SMK students because the books used still contain four language skills and combine fiction and non-fiction texts. According to Zuchdi (2012: 99), the provision of learning resources that are in accordance with the level of students' reading skills using the same topic according to a package book of a level must always be available in large quantities.

In the planning stage, the researcher made a design to make a special textbook for reading skills made for class XI SMK students. The textbooks were only focused on non-fiction texts to improve students' reading comprehension. The selection of non-fiction texts for class XI SMK students included explanatory texts, procedural texts, lectures, and reviews. Reading textbooks would be developed by applying the CIRC learning model.

Based on research by Abbas Ali Zarei and Jaafar Keshavarz, M.A. (2011) entitled *On the Effects of Two Models of Cooperative Learning on EFL Reading Comprehension and Vocabulary Learning* stated that the CIRC learning model also has a positive impact on interdependence to work together in study groups.

Students can learn more vocabulary because the CIRC learning model requires students to make a summary of each reading. This is useful for improving reading comprehension and vocabulary mastery.

According to Slavin (2016: 205-209), the main elements of CIRC include (1) reading groups; (2) team; (3) activities related to reading. These activities include reading in pairs, writing a summary of the reading by paying attention to writing according to correct grammar, reading aloud, and looking for word meanings, retelling stories in their own language and spelling; (4) examination of reading activities by partners; (5) test; (6) direct teaching by the teacher in understanding reading; and (7) integrated language and writing arts.

Based on the 7 main elements of the CIRC learning model, the stages of developing non-fiction textbooks can be modified into (1) creating reading groups; (2) make the team read; (3) reading in pairs; (4) analyse the structure and rules of language; (5) restate the text orally; (6) re-examine reading comprehension activities; (7) reading comprehension test; (8) independent reading and making reading reports.

At the validation stage, product validation was carried out by experts and teachers. The minimum validation results are in the "good enough" category to be declared "appropriate" as a textbook for supporting students' reading learning in class. Then, the textbooks were tested on students by revising according to suggestions from experts and teachers.

At the implementation stage, the teacher gave assignments to read and work on practice questions in the textbook. Teachers uploaded textbook files via Google Classroom. This is due to distance learning during the Covid-19 pandemic. The teacher chose one topic, namely the review text. Students read and did assignments. After completion, students filled out the student response sheet, which aims to provide responses to the textbook.

At the evaluation stage, the textbook product was revised based on student suggestions. In addition to being printed in the form of textbooks, book products can also be accessed in pdf form so that teachers and students can use the textbooks even in online classes.

### ***3.5 The Textbook Product Feasibility***

The feasibility of textbooks was tested by experts and teachers as validators. Aspects of the feasibility of textbooks include aspects of content feasibility, presentation feasibility aspects, language feasibility aspects, and graphic feasibility aspects. The expert gave an average score of 4.06 in the "good" category. Meanwhile, the teacher gave an average score of 4.35 in the "very good" category.

The advice given by the expert was to revise the cover section of the chapter, which includes the wrong learning objectives, while the revision from the teacher was to include learning objectives that were not yet at the beginning of the chapter. Additionally, the teacher also provided suggestions for revising the appearance of pages that were not quite right. After the textbook was revised, the next step was to test the textbook product on students.

According to Curningsworth via Novianto and Ali Mustadi (2015: 7), textbooks are an effective source of learning references for independent study and directly provide materials needed by teachers, such as an objective learning syllabus that teachers can use for teaching and learning activities with students.

### 3.6 Students' Responses to Textbooks

Student response tests were carried out on students of class XI Culinary 2 from SMK Negeri 6 Yogyakarta with a total of 64 students. The teacher piloted lessons through Google Classroom during Indonesian language learning by giving assignments to students to read and work on practice questions in the textbook in chapter IV of the review text.

Students could see the entire contents of the book based on the soft file of the book that had been uploaded by the teacher in Google Classroom. Students gave a score of 4.04 with a "good" category for reading comprehension textbooks.

Book products received many positive responses stating that the textbooks were acceptable to students, the contents were easy to understand, and the textbooks were quite good. In addition, there were several criticisms and suggestions for improving the book, including the appearance of the book cover that needed to be improved to make it more attractive and the text background display to be changed to a color that does not interfere with the appearance.

According to Muslich (2010: 97-98), textbooks make students motivated to think and do positive things, such as solving problems in textbooks, making observations according to textbook instructions, and doing independent exercises according to questions in textbooks.

### 4. Conclusion

Based on the research and development that has been carried out, the following is an elaboration of the conclusions of the research results.

This study aimed to: (1) produce textbooks for reading comprehension of non-fiction texts for class XI SMK based on the *Cooperative Integrated Reading and Composition* learning model, (2) describe the results of the product validation of reading comprehension textbooks of non-fiction for class XI SMK based on the *Cooperative Integrated Reading and Composition* learning model by experts and teachers, and (3) describe the results of the assessment of the non-fiction textbook reading comprehension of class XI SMK based on the *Cooperative Integrated Reading and Composition* learning model by students.

The advice given by the expert was to revise the cover section of the chapter, which includes the wrong learning objectives, while the revision from the teacher was to include learning objectives that were not yet at the beginning of the chapter. Additionally, the teacher also provided suggestions for revising the appearance of pages that were not quite right. After the textbook was revised, the next step was to test the textbook product on students. Book products received many positive responses stating that the textbooks were acceptable to students, the contents were easy to understand, and the textbooks were quite good. In addition, there were several criticisms and suggestions for improving the book, including the appearance of the book cover that needed to be improved to make it more attractive and the text background display to be changed to a color that does not interfere with the appearance.

The benefits of developing a reading comprehension textbook for class XI SMK based on the CIRC learning model are as follows. (1) Helping students to improve their reading comprehension of nonfiction texts; (2) Helping students think critically to solve problems in study groups; (3) Helping students read nonfiction texts in a good and correct way according to the CIRC learning model; (4) Become a guide for teachers as a learning resource that supports the learning process of reading comprehension of nonfiction texts; and (5) Facilitate teachers to teach the process of reading nonfiction texts with a new learning model.

Textbooks for reading comprehension of nonfiction texts for class XI SMK based on the CIRC learning model developed are only used by class XI SMK students as a learning resource to support the learning process of reading nonfiction texts. In addition, the book only focuses on one language skill, reading and contains non-fiction texts only.

Further product development that can be carried out, namely product development, is not limited to class XI SMK but can be developed for all levels, both SMK and SMA. The choice of non-fiction texts can be more diverse, and the practice questions are more varied, ranging from multiple choice to essays. Further research can be conducted to test the effectiveness of textbooks developed based on the *Cooperative Integrated Reading and Composition* (CIRC) learning model for class XI students of SMK.

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