



## DEVELOPMENT OF TEACHING MATERIALS TO IMPROVE READING COMPREHENSION SKILLS FOR 5<sup>TH</sup> GRADE STUDENTS: CANVA APP SUPPORTED

Ryan Dwi Puspita<sup>1)</sup>, Duhita Savira Wardani<sup>2)</sup>, Silvia Rabbani<sup>3)</sup>

Primary School Education, Faculty of Education, IKIP Siliwangi<sup>12)</sup>

E-mail: [ryan.dwi@ikipsiliwangi.ac.id](mailto:ryan.dwi@ikipsiliwangi.ac.id), [duhita@ikipsiliwangi.ac.id](mailto:duhita@ikipsiliwangi.ac.id),  
[sylviarabbani@ikipsiliwangi.ac.id](mailto:sylviarabbani@ikipsiliwangi.ac.id)

---

Submit: 15 Juli 2022., Revisi: 11 November 2022, Approve: 31 November 2022

---

### Abstract

The aim of this study was to determine the effect of the developed Canva application-based teaching materials on improving the reading comprehension skills of fifth grade students. The approach used in this study was Design and Development (Ellis & Levy, 2010). Data collection techniques were carried out by interviewing teachers, questionnaires, pretest and posttest. This study used a sample of 171 grade 5 students in 3 elementary schools. The results of this study indicate that the use of Canva application-based teaching materials has a significant effect on improving the reading comprehension ability of fifth grade students' information texts. This is evidenced by the difference in students' reading comprehension abilities of information texts before and after learning using application-based teaching materials. canvas. The implication of this research is to help make it easier for teachers to achieve learning objectives with the support of teaching materials, learning media, student worksheets, and fun and practical activities that enable students to improve reading comprehension skills, especially information texts.

**Keywords:** informational texts, reading comprehension, students 5th grade, teaching materials

**Pengutipan:** Puspita, Ryan Dwi, dkk. (2022). Development of Teaching Materials to Improve Reading Comprehension Skills for 5<sup>th</sup> Grade Students: Canva App Supported. *JMIE: Journal of Madrasah Ibtidaiyah Education*, 6(2), 2022, 163-172. [jmie.v6i2.442](https://doi.org/10.32934/jmie.v6i2.442).

**Permalink/DOI:** <http://dx.doi.org/10.32934/jmie.v6i2.442>

---

## INTRODUCTION

Reading is a very important language skill to be mastered by elementary school students (Sahin 2013; Croce, 2014; Walters, 2014; Puspita, et al., (2017) in their research found that some children have difficulty in learning to read caused by factors such as: different factors. Difficulty learning to read and weak reading ability. Reading is one of the most important learning activities given to elementary school students because reading ability is an early indicator of success and becomes the basis for success in school (Tompkin, 2012). Various research results show that students who are able to read well are more likely to succeed in other subjects such as social science, science, and mathematics (Natalie et al., 2015). Reading skills are also the foundation for future student success (Küçükoglu, 2013). Good reading comprehension is very important because these skills not only help not academically, but also professionally and personally. Apart from the importance of reading comprehension, the results of the study show that elementary school students in Indonesia do not yet have adequate reading comprehension skills (Nurvitriawati & Sulfasyah, 2018). reading comprehension skills should be strengthened early i.e. in elementary school.

Difficulties in the reading comprehension process are experienced by some elementary school students in Indonesia. This data is reinforced by PISA findings related to the average reading ability score obtained by Indonesian students which is still below the OECD average. The comprehension ability of Indonesian students is weak in understanding paragraph ideas, understanding relationships between facts, logical linguistic relationships, and finding reading ideas (Xiao et al., 2019). Some of the fifth grade elementary school students in Bandung district experienced the same difficulty in terms of reading comprehension, especially in terms of understanding information text. This is indicated by the ability of students who have not been able to understand the explicit meaning, understand important information, apply understood information, analyze information, evaluate understood information by observing and trying (listening, seeing, reading) and asking questions based on curiosity critically. about himself, God's creatures and their activities, and the objects he finds at home, school, and playground, in clear and logical and systematic language. This is experienced by students during online learning during the Covid 19 pandemic.

This condition is clearly very concerning and must be immediately made improvements in the learning process. It will be more effective if active learning is carried out in learning reading comprehension in grade 5 elementary school. This is reinforced by the explanation of Meyers & Jones (1993) namely "Active learning involves providing opportunities for students to meaningfully talk and listen, write, read, and reflect on the content, ideas, issues, and concerns of an academic subject". This opinion implies that active learning (active learning) shifts the focus from the teacher as the center of learning, shifts to students who are also actively involved with the material. Through active learning techniques (active learning) and modeling by the

teacher, students let go of the traditional role as passive receptors in this case students are required to learn and practice how to capture knowledge and skills so that they are able to use them meaningfully.

To overcome problems related to learning to read and understand reading comprehension of grade 5 elementary school students, researchers developed relevant application-based learning tools that were deemed relevant and effective to improve reading comprehension skills of informational texts, namely the development of teaching materials based on the Canva application. The Canva application is an online design program that provides various templates for presentations, resumes, posters, pamphlets, brochures, graphics, infographics, banners, bookmarks, bulletins, and so on (Pelangi, 2020). This Canva application has a variety of attractive designs, easy to use, able to increase teacher creativity, save time, and make it easier to do technology-based learning (Wardani, Kelana, & Jojo, 2021). Several studies that support the study of digital-based learning tools include Faisal et al. (2020) the need for the development of digital learning tools, Yuniarti (2020) the development of teaching materials to improve reading skills, Wastuti et al. (2021) the importance of developing easy-to-use teaching materials by both teachers and students to support the learning process. Based on these data, the authors focus their research on developing teaching materials to improve reading ability in grade 5 elementary school students, especially in terms of informational texts with the help of the Canva application.

## METHODS

The approach used in this research is Design and Development (Ellis & Levy, 2010). The steps taken in the research were 5 stages, namely (1) Identify the Problem, at this stage the researcher identified problems related to problems in the learning process of reading comprehension in grade 5 in several elementary schools in Bandung district. This identification stage was carried out by interviewing 2 5th grade elementary school teachers. This stage became the basis for the development of teaching materials carried out. (2) Describe the Objectives, at this stage the researcher describes the purpose of starting to describe the main problems in the learning process of reading comprehension in grade 5 students during online learning, describing the field needs related to the teaching materials needed and describing the right application and easy to use by students. teacher. (3) Design & develop the artifact, at this stage the researcher designs a product draft in the form of teaching materials based on the Canva application with informational text content, namely text with text content of Natural Science with the theme Healthy is Important (Sub theme 1: Healthy Life, Strong Body and Sub-theme theme 2: Healthy Environment) as well as task design that is able to activate students' prior knowledge and hands-on experience. After the product draft was compiled, the researchers developed it by validating the Canva application-based teaching materials to 2 experts, namely

teaching materials experts and technology experts and 1 practitioner, namely a user teacher who would apply Canva application-based teaching materials. (4) Test the Artifact and Evaluate the Testing Result, at this stage a test of teaching materials based on the Canva application is carried out in 1 class and the researcher revises the teaching material according to input from the field (5) Communicating the Testing Result, at this stage the researcher conducts a test effectiveness of teaching materials based on the Canva application in 2 classes (6) Dissemination, this stage has not been carried out by researchers due to time constraints in the study.

This research was conducted in 3 elementary schools located in the district of Bandung. The sample used was 171 grade 5 elementary school students. The sample selection technique uses purposive sampling with the category of schools with easy access to information and has carried out online learning using relevant applications. The data collection instruments used were interviews, questionnaires, pre-test and post-test. The instrument used in the assessment of teaching materials refers to the indicators of the development of teaching materials from Akbar (2013). Interviews are used to identify problems that occur in the field so that teaching materials can be developed according to needs. The teaching materials were developed using a questionnaire, while the effectiveness data were obtained through the results of the pre-test and post-test. The results of the item validation test were declared valid as many as 10 items. The reliability test used in this study was the Cronbach Alpha Reliability Coefficient technique, which obtained an alpha of 0.834 for reading comprehension skills greater than 0.05. Thus the research instrument is declared reliable.

## RESULTS AND DISCUSSION

### Design & Develop The Artifact

The design of teaching materials to improve reading comprehension skills of informational texts with the Canva application as a support is designed as usual learning text teaching materials that refer to the 2013 curriculum, these teaching materials contain learning plans based on extracting information from informational texts with steps referring to the Interactive-Compensatory Model. This teaching material contains the learning sequence stated in the activities that students must do. This book directs the things that students must do together with their teachers and classmates to achieve certain competencies. The achievement of integrated competence as stated in the formulation requires an integrated thematic learning approach, namely studying three subjects in an integrated manner, namely Indonesian, Natural Science and Social Science subjects with the theme Healthy Is Important. Students are invited to take part in a transdisciplinary learning process that places the competencies learned are linked to the context of students and the environment. The materials of various subjects are linked to each other as a single unit, forming multidisciplinary and interdisciplinary learning, so that there is no overlap and inconsistency between subject matter. The learning steps that

students must take are as follows: (1) Writing Experiences, (2) Observing Pictures, (3) Writing with Critical Thinking, (4) Let's Read, (5) I Become Understanding, (6) Let's Do It, (7) Let's Discuss and Report, (8) Study at Home. The development of teaching materials is carried out by validating experts and practitioners. Expert and user validation results are described below.

**Table 1. Expert and User Validation Results**

	Va	Vp	Average/Category
1st Revision	80,50%	81,25%	80,87% / Usable with Minor Revisions
2nd Revision	90,19%	89,24%	89,71% / Usable

Notes:

Va: Expert validation

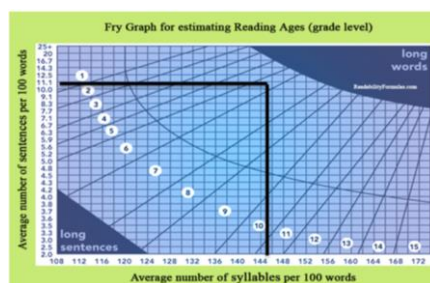
Vp: User Validation

At the time of revision 1, teaching materials were improved according to input from experts and users. The text used was tested using Fry's (1977) graph. An explanation of the results of the text test using the Fry chart is detailed below.

**Table 2. Fry Graph Test Results**

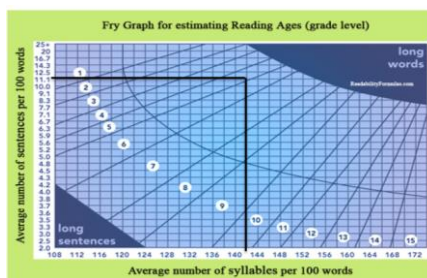
Reading Title	Word Count	Number of Sentences	Number of Syllables	Conversion
Discourse 1: Functions of Human Organs	100	11	243	$243 \times 0,6 = 145$
Discourse 2: Recycle Water	100	12	241	$241 \times 0,6 = 144,6$
Discourse 3: Humans and Natural Phenomena	100	10	237	$237 \times 0,6 = 142,2$

The results of the Fry graph test in table 2 can be explained as follows. The results of the discourse test 1 with the title Human Organ Functions are shown in the Figure 1 below.



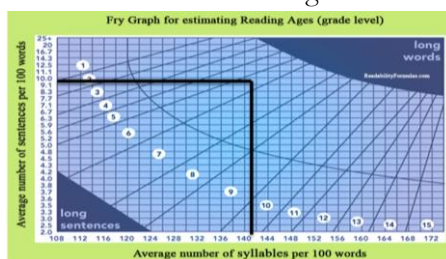
**Figure 1. Discourse Readability Test of Discourse Fry Graph 1**

Once plotted the result falls in region 6. This readability level is approximate. Therefore, the discourse readability rating should be increased by 1 level and reduced by 1 level. Thus the discourse is suitable for ranking 5, 6, 7. The results of the discourse 2 test with the title Water Recycling are shown in the image below.



**Figure 2. Discourse Readability Test Fry Discourse 2**

Once plotted the result falls in region 5. This readability level is approximate. Therefore, the discourse readability rating should be increased by 1 level and reduced by 1 level. Thus the discourse is suitable for ranking 4, 5, 6. The results of the discourse 3 test with the title Humans and Natural Symptoms are shown in the image below.



**Figure 3. Discourse Readability Test Fry Discourse 3**

Once plotted the result falls in region 6. This readability level is approximate. Therefore, the discourse readability rating should be increased by 1 level and reduced by 1 level. Thus the discourse is suitable for ratings of 5, 6, 7. Based on input from practitioners, it shows that this teaching material should be revised slightly. As for what must be revised related: systematic writing of teaching materials and caver design of teaching materials, namely the cover image is not in accordance with the contents of the teaching material, the cover should be equipped with images related to all sub-themes. The caver design is only in accordance with sub-theme 2. The teaching materials are not perfect because in some parts the writing does not match the good and correct spelling. The use of words in teaching materials should be simplified. In teaching materials, the text does not have to be a lot, but in one sub-theme it must contain special tricks that can improve reading comprehension ability. Actually, one sub-theme or one meeting (5 hours of lessons) if the strategy is right, it can definitely improve students' understanding abilities. The preparation of application-based teaching materials that can be accessed online and offline is a necessity in the era of Industrial Revolution 4.0 as it is today (Faisal et al., 2020). The rapid advancement of technology will of course have an impact on all fields.

### Canva App-Assisted Teaching Material Draft Trial

The trial of teaching materials with the help of the Canva application was carried out on 55 students from one elementary school. At the pre-test stage, normality and homogeneity of variance tests were carried out for both groups of pre-test data samples. The normality test used the Kolmogorov-Smirnov test with the help of SPSS software version 25. To see the distribution of the pretest and posttest score data for the experimental class, a normality test was performed.

The results of the normality pretest and posttest reading comprehension abilities were normally distributed. It can be seen from the results of the normality test of the data with the value of Sig. > 0.05. The homogeneity test of pretest and posttest scores was not carried out because it used the paired sample t test. The test results with the complete t-test can be seen in the table below.

**Table 3. The Results of the Pretest and Posttest Differences in Reading Comprehension in Class**

Data	<i>t<sub>hitung</sub></i>	<i>df</i>	<i>t<sub>tabel</sub></i>	<i>Sig.</i>	Decision
Pretest- Posstest	7,643	57	1,425	0,000	There is a difference

The table above explains that the test of differences in the average pre-test and post-test results of the reading comprehension comprehension of the experimental class at a significance level of 0.05 obtained p (sig.(2-tailed))=0.000. This indicates that there is a difference in the ability to read and understand texts. information after learning by using teaching materials assisted by the Canva application. Teaching materials developed follow the applicable curriculum and activities to achieve learning objectives refer to basic competencies (Ahmar & Rahman, 2017; Sari et al., 2022). The usefulness of teaching materials is to facilitate teachers in the learning process. Teaching materials must be developed based on needs based on technology or conventional (Iasha et al., 2020).

### The Effectiveness of Canva Application-Aided Teaching Material Development

After the trial was carried out, the researchers made improvements to the teaching materials so that the teaching materials were ready to be tested for their effectiveness. Based on the results of statistical tests, it was shown that the results of the pretest and posttest normality tests for reading comprehension in the experimental class and the control class were declared normal. While the results of the homogeneity test at the pre-test of the experimental class and control class were declared homogeneous. Homogeneity test was also carried out on the posttest result data and it was declared not homogeneous. The t test used is the Independent sample t test. The results are explained below.

**Table 4. The Results of the Pretest Differences in Reading Comprehension**

<b>Data</b>	<b><i>t<sub>hitung</sub></i></b>	<b><i>df</i></b>	<b><i>t<sub>tabel</sub></i></b>	<b><i>Sig.</i></b>	<b>Decision</b>
Pre test	0,414	114	1,980	0,680	There is no difference

Based on Table 4, it can be seen that the average difference test on the pre-test reading comprehension ability of the experimental class and the control class at a significance level of 0.05 was obtained  $p$  (sig.(2-tailed) = 0.068. The  $t$  table can be searched with the  $t$  distribution table at 95% confidence level ( $\alpha=5\%$ , because the  $t$ -test is two-sided, then the value  $/2=5\%=0.025$ ) and degrees of freedom ( $df$ ) =  $n-2$ , so  $t$  table =  $t$  (0.025). posttest data are described below.

**Table 5. The Results of the Posttest Differences in Reading Comprehension**

<b>Data</b>	<b><i>t<sub>hitung</sub></i></b>	<b><i>df</i></b>	<b><i>t<sub>tabel</sub></i></b>	<b><i>Sig.</i></b>	<b>Decision</b>
Posttest	6,213	114	1,980	0,000	There is a difference

Based on Table 5, it can be seen that the average difference test on the posttest reading comprehension ability of the experimental class and the control class at a significance level of 0.05 obtained  $p$  (sig.(2-tailed) = 0.000.  $T$  table can be searched with the  $t$  distribution table at the level of confidence 95% ( $\alpha=5\%$ , because the  $t$ -test is two-sided, then the value of  $/2=5\%=0.025$ ) and degrees of freedom ( $df$ ) =  $n-2$ , so  $t$  table =  $t$  (0.025). Based on the data in the table 4 shows that there is no difference in students' reading comprehension ability of information texts at the time of pre-test. Table 5 shows that there is a significant difference in students' reading comprehension skills of information texts between the experimental class and the control class.

The achievement of improving students' reading comprehension skills of informational texts will be optimal if after learning using Canva application-assisted teaching materials are followed up with certain steps or real activities to apply student understanding. Examples of activities include cleaning the surrounding environment, planting flowers, being given the task of discussing with parents how to maintain a healthy home environment, doing sports or gymnastics, reading activities to the library and reading activities at home. By doing real activities as a follow-up to reading comprehension learning, students will use the information they understand from the text in real activities or in everyday life (Puspita, 2017). Some students experienced low-level difficulties, namely in understanding the implied meaning in the text they read. This is experienced by students because students are not accustomed to being assigned to determine the implied meaning in the text they read. In this case, the design of the assignments given by the teacher is not accurate at the time of learning.

## CONCLUSION

The teaching materials developed are effective for improving reading comprehension skills of informational texts if they integrate contextual learning into the teaching and learning



process and use interesting texts that are appropriate to the level of students' needs and abilities. The development of these teaching materials combines content (text), learning, interaction to improve reading comprehension skills of informational texts. The development of teaching materials assisted by the Canva application to improve reading comprehension skills is still far from perfect due to limited research time and the sample used. This research should be refined by trying to use curriculum design with other models, identifying the relationship between students' motivation in reading informational texts and improving students' reading comprehension skills and using a sample that is wider and varied so that the quality of teaching materials is more tested.

## REFERENCES

- Ahmar, A., & Rahman, A. (2017). Development of teaching material using an Android. *Global Journal of Engineering Education*, 19(1), 72-76.
- Croce, A. K. (2014). Assessment of Burmese Refugee Students' Meaning Making of Scientific Informational Texts. *Journal of Early Childhood Literacy*, 14(3), 389–424.
- Faisal, M., Hotimah, H., Nurhaedah, N., Nurfaizah, A. P., & Khaerunnisa, K. (2020). Peningkatan kompetensi guru sekolah dasar dalam mengembangkan bahan ajar digital di Kabupaten Gowa (Improving the competence of elementary school teachers in developing digital teaching materials in Gowa Regency). *Publikasi Pendidikan*, 10(3), 266-270.
- Fry, E.B., (1977). "Fry's Readability Graph: Clarification, Validity, and Extention to Level 17", *Journal of Reading*. Newmark, Del: International Reading Association.
- Iasha, V., Al Ghozali, M. I., Supena, A., Wahyudiana, E., Setiawan, B., & Auliaty, Y. (2020, September). The Traditional Games Effect on Improving Students Working Memory Capacity in Primary Schools. *In Proceedings of the 4th International Conference on Learning Innovation and Quality Education*, 1-5.
- Küçüköğlu H. (2013). Improving reading skills through effective reading strategies. *Procedia - Social and Behavioral Sciences*. 70, 709 – 714.
- Meyer, Chet&Jones, Thomas B., (1993). *Promoting Active Learning: Strategies for Collage Classroom 1st Edition*. Maxwell Macmillan International Publishing Group: New York.
- Nurvitriawati, Sulfasyah. (2018). Pengaruh Model Explicit Instruction terhadap Hasil Belajar Bahasa Indonesia Membaca Konsep Denah Pada Murid Kelas IV SD (The Influence of the Explicit Instruction Model on Indonesian Language Learning Outcomes Reading Concept Plans in Fourth Grade Elementary School Students). *Jurnal Kajian Pendidikan Dasar*. 3 (1), 417-428.
- Natalie L, Barratt-Pugh C, Anderson K, Barblett L & Haig Y. (2015). Engaging children in reading for pleasure: A better beginnings project linking libraries with primary schools. *LIBRI*, 65(1), 15–24.

- Pelangi, Garris. (2020). Pemanfaatan Aplikasi Canva Sebagai Media Pembelajaran Bahasa dan Sastra Indonesia Jenjang SMA/MA (Using the Canva Application as a Media for Learning Indonesian Language and Literature at the SMA/MA Level). *Jurnal Sasindo*, 8(2), 79-96.
- Puspita, R. D. (2017). Pengembangan Perangkat Pembelajaran Tematik Terpadu Berbasis Model Interactive-Compensatory (ITMIC) Untuk Meningkatkan Kemampuan Membaca Pemahaman Teks Informasi: Penelitian dan Pengembangan pada Siswa Kelas 5 Sekolah Dasar di Kabupaten Bandung (Development of Integrated Thematic Learning Devices Based on the Interactive-Compensatory Model (ITMIC) to Improve Reading Comprehension of Information Texts: Research and Development in Grade 5 Elementary School Students in Bandung Regency). (*Doctoral dissertation*, Universitas Pendidikan Indonesia).
- Puspita, R. D., Sunendar, D., Musthafa, B., & Yudiantara, R. A. (2017). The Use of Interactive-Compensatory Model Based-Learning Material to Improve Informational Text Reading Comprehension Ability of 5th Grade Elementary School in Bandung Regency Indonesia. *Advanced Science Letters*, 23(11), 10952-10954.
- Richey, R.C., Klein, J.D. (2010). *Desain and Development Research*. New York: Routledge.
- Sahin, A. (2013). The Effect of Text Types on Reading Comprehension. *Mevlana International Journal of Education (MIJE)*. 3(2), 57-67.
- Sari, Y., Yustiana, S., Fironika, R., Ulia, N., Iasha, V., & Setiawan, B. (2022). The Design of Religious Value-Based Teaching Materials in Increasing Students' Learning Achievement Elementary School. *Jurnal Basicedu*, 6(1), 1137-1144.
- Tompkins, V., Bengochea, A., Nicol, S., & Justice, L. M. (2017). Maternal inferential input and children's language skills. *Reading Research Quarterly*, 52(4), 397-416.
- Walters, Braker, Barbara A. (2014). Informational Text and the Common Core: A Content Analysis of Three Basal Reading Programs. *SAGE*. 1-8.
- Wardani, D.S., Kelana, J., & Jojo, Z. (2021). Communication Skills Profile of Elementary Teacher Education Students in STEM-based Natural Science Online Learning. *Profesi Pendidikan Dasar*, 8(2): 98-108.
- Wastuti, I. B., Febrianto, P. T., & Hanik, U. (2021). Development of Advisor Textbook Based on Roket Tase'Local Wisdom for Class IV Elementary School. *Widyagagik: Jurnal Pendidikan dan Pembelajaran Sekolah Dasar*, 9(1), 92-103.
- Xiao, Y., Liu, Y., & Hu, J. (2019). Regression analysis of ICT impact factors on early adolescents' reading proficiency in five high-performing countries. *Frontiers in psychology*, 1646.
- Yuniarti, A., & Radia, E. H. (2021). Development of Comic Mathematics Teaching Materials on Flat-Building Material to Increase Reading Interest in Class IV Elementary School Students. *Journal of Education Technology*, 4(4), 415-423.