



Scientific Literacy Ability Through Speed Reading Methods in Class V Elementary School Students

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Abstract: The teacher has not provided a special method to improve reading skills, the teacher has not measured the students' reading speed and the percentage of understanding of the reading content that the students have achieved, apart from that, the students also think that reading is a very boring lesson. Reading is an important skill that can have implications for other literacy skills. However, the average reading ability of SDN 1 Nameng students is still not optimal. The aim of this research is to improve students' reading literacy skills by using the speed reading method on students' science lesson material. The method used in this research is action research which refers to the Kemmis and Mc Taggart model using a spiral system cycle consisting of planning, implementing actions, observation and reflection. The results of class actions in cycle I averaged 72.34% and increased in cycle II with an average of 80.46%. The conclusion of the class action carried out shows that the speed reading method is able to improve students' reading literacy skills in science subject matter.

Keywords: Elementary School; Scientific Literacy; Speed Reading Method

Introduction

Education has an important role in human life, every activity carried out by humans is included in education, because broadly life experience is the education that is most clearly before our eyes. Education in a broad sense means that education does not only take place in one educational institution called a school. However, it occurs in every space of human life and in all development sectors (Syafii et al., 2020). In a narrower sense, education is limited to certain functions (Simaremare et al., 2021). In a society consisting of the transfer of customs (traditions) with social background and outlook on life. Speed reading is the activity of reading quickly in a relatively short time to understand the outline of the content or main idea of a reading,

without neglecting understanding of the content (Lubis et al., 2021). Students' reading ability is very important, because as a foundation for determining success, the ability to read and write will really help expand students' experience and abilities, and if young children do not immediately have the ability to read, then they will experience many delays in studying various fields of study in class - next class (Pelo, 2020).

Based on observations made, it shows that reading literacy skills in science learning are only achieved through reading activities (Sianipar, 2022). The teacher has not provided a special method to improve reading skills, the teacher has not measured the students' reading speed and the percentage of understanding of the reading content that the students have achieved, apart from that, the students also think that reading is a

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very boring lesson (Budia, 2019). So according to the author, the results of interviews with class V teachers have not provided any action related to this problem, so that students still experience a lack of interest in reading, reading fluency and understanding that is still lacking, making learning outcomes not yet meet the KKM values that have been determined by the school. Therefore, on this occasion the author conducted research using a speed reading method that had never been used by class teachers or other teachers before, with the hope of improving students' reading abilities and understanding (Loh et al., 2019).

Based on the description above, it is hoped that there will be an increase in students' speed reading abilities by implementing learning that is more fun and not boring. One learning method that can be applied is the Speed Reading method (Pianzola et al., 2020). Next, the author can conduct classroom action research entitled "Reading Ability in the Folklore Text 'Sangkuriang' Using the Speed Reading Method in Class V Students of Sdn Nameng 1, Lebak Regency" (Haberlandt, 2018).

Reading is: reading is a process, strategic and interactive. Reading is a process, meaning that information from the text and the knowledge possessed by the reader have a major role in forming meaning. Strategic means effective reading using various strategies that are appropriate to the text being read. Interactive means the reader's involvement with the text depending on the context. One of the language skills that must be developed is the ability to read, because by reading children can understand the meaning of words and sentences, and understand that there is a relationship between spoken and written language (Brysaert, 2019).

Meanwhile, in relation to reading, Conklin et al., (2020) provides the understanding that "Reading is the activity of verbalizing or reading only silently by looking at the writing in a reading text". According to (Artawan, 2020; Asrifan et al., 2021; Proctor et al., 2020) "Reading is a critical-creative processing of reading carried out by readers to obtain a comprehensive understanding of the reading, which is followed by an assessment of the situation, value, function and impact of the reading (Sakamoto, 2021).

According to (Khusniyah, 2021; Torppa et al., 2020) explain that, "reading ability is the ability to see and understand the content of what is read, expressed verbally or just in the heart, children can read fluently, well and capture the content of the reading given by the teacher. Based on research conducted by Rahmawati The resulting product is the development of a picture story book based on folklore material for class V elementary schools. According to the definition of reading ability above, the author can conclude that reading plays a very

important role in everyday life, especially for children, so they can understand what they see, then they can express it verbally or just in their hearts, as is the case with reading (Barus et al., 2021). steps to make the reading process effective Olivia (2013) namely: (1) Read in an environment that supports you to be more focused, (2) don't read everything yet, (3) Make notes of the main points, (4) Take a break while digesting, (5) Pause for a moment in a difficult chapter, (6) Recall, recall!, (7) Tell other people, (8) Donate your book (Pressley et al., 2023).

Reading purpose is to gain knowledge, find the facts contained in the reading, then provide an assessment of these facts, take the main idea and outline in the reading, express the beauty contained in a literary work, so that readers have reading skills using sentence songs, intonation sentences, fragmentation of words or sentences as well as correct and precise pronunciation of phonemes (Dickinson et al., 2019).

Speed reading is a type of reading that prioritizes speed in managing and quickly receiving information without leaving out understanding of aspects of the reading (Susanti et al., 2021). Therefore, what must be understood and recognized in the speed reading process are eye movement patterns and recognizing key words to understand the content contained in the reading text. (Wexler et al., 2018). According to Chasanah Speed reading is a reading system that uses speed without ignoring understanding. Speed reading activities must be linked to reading goals, needs and reading materials. Speed reading is reading that is done at high speed without ignoring understanding of the reading (Ross, 2021). Based on the opinions of the experts above, the author concludes that speed reading can be interpreted as a way for someone to read relatively quickly by focusing on the process of thinking and remembering what they read without ignoring understanding in their reading (Rajagukguk, 2019).

Some speed reading steps (Halamish et al., 2020; Khasawneh et al., 2020), namely: Preparation, Implementation, Eye muscle training, Peripheral Eye Exercises (following the movement of the index finger), Breathing Exercises, Exercises to speed up eye movements, Exercises to widen the range of the eyes, Concentration Training, Super fast reading practice, Practice recognizing words, Practice recognizing phrases, Concentration exercises to untangle tangled threads, Concentration exercise: counting the number of dots (Caswell et al., 2018).

The objectives of speed reading obtained by (Aquino et al., 2021; Rintaningrum, 2019) are: (1) Obtaining a general impression of a book, article or short writing, (2) Finding certain things from reading material, (3) Finding or placing the required material in the library, (4) Finding the information you need from

reading material quickly and effectively, (5) Searching for book pages or reading material in a short time, (6) Not much time is wasted because there is no need to pay attention or read parts that we don't need (Potter, 2018).

Method

This research uses the classroom action research (PTK) method. This research examines student activities and learning outcomes using the Kemmis and McTaggart models (Kosasih Galinggng et al., 2022). In simple terms, PTK can be defined as a controlled investigative process that is recyclable and self-reflective in nature carried out by prospective teachers with the aim of making improvements to systems, ways of working, processes, content, competencies or learning situations (Brodin et al., 2020).

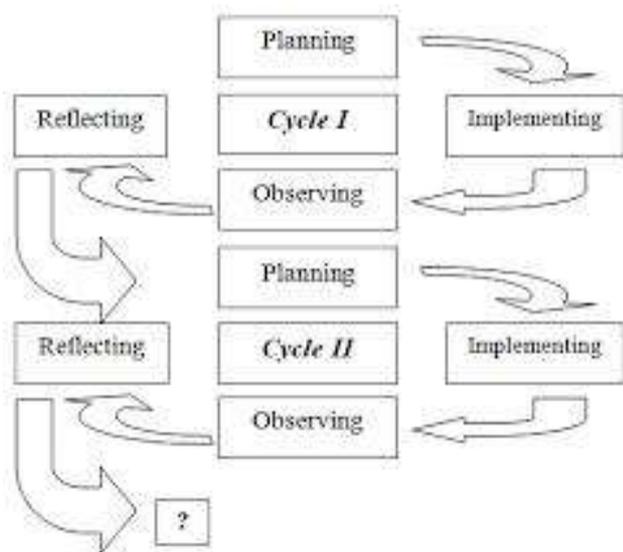


Figure 1. Classroom Action Research Design

This research was carried out at SDN N ameng 1, Rangkasbitung District, Lebak Regency. The subjects of this research were class V students with the number of subjects in this research being 26 students consisting of 16 male students and 10 female students. The method that will be used in this research is a model developed by Kemmis and Mc Tagger using a spiral cycle system. At the beginning, the action begins with a pre-cycle to identify problems that exist during the process of learning to read, where the research is used as preparation and balancing material for using the Speed Reading method in cycles I and II. Observations were carried out by paying attention to the teacher's teaching, student activity and student reading learning outcomes. At the end of learning to carry out a test, from the test results it is known the student's learning outcomes in Indonesian folklore material before using the speed reading method (Liu et al., 2018).

The data collection techniques used in this research are: Observation, Interview and test. The research instrument is a tool used to measure speed reading ability which includes. h student formative test results (Bursali et al., 2019).

Result and Discussion

Students who reached the KKM at the time of observation based on the pre-cycle were still very few compared to the number of students who did not reach the KKM. as in Table 1.

Table 1. Description of students' effective reading speed before action

Success Indicators	The number of students	In percent (%)	Average value
Reach KKM	10	25	
Did not reach KKM	16	75	61.46

Table 2. Description of effective reading speed in pre-cycle, cycle I and cycle II

No	Student's Name	Pre Cycle	Cycle 1	Cycle 2
1	Ab	60	66	70
2	Ak	70	66	70
3	Am	60	65	100
4	Bd	70	85	90
5	Mom	80	66	85
6	By	70	90	100
7	Tsk	62	60	75
8	CRM	66	66	70
9	Dgc	85	68	85
10	Drg	70	66	78
11	Fuck	70	85	100
12	Mkn	70	70	76
13	Nuk	70	70	76
14	Mk	70	76	76
15	Rl	70	65	77
16	Ryk	66	85	100
17	Iku	75	95	83
18	Stu	65	65	83
19	Qt	66	66	50
20	Tr	70	70	50
21	Tym	80	80	83
22	OK	70	70	66
23	Um	70	70	100
24	Ukb	66	66	83
25	Yes	65	65	66
26	Ylk	65	85	100
Amount		1801	1881	2092
Average		69.27	72.35	80.46
The highest score		85	95	100
Lowest value		60	65	50

Based on the success indicators above, it is very necessary to take corrective action, for this reason the

author improves the students' reading process. The students' reading process was previously limited to reading only the available textbooks and the author applied the speed method reading on students' reading abilities (Tampubolon et al., 2020).

In cycles I and 2, 2 meetings were held, namely the 1st meeting and the 2nd meeting with the theme "Extracting important information from the sangkuriang narrative text which is presented orally and in writing using what, where, when, who, why, and How". The learning process is carried out by apperception, namely the author explains the speed method reading. Next, the author asks students to understand or listen to the speed method reading, the author distributes the story text to students and explains the learning steps using the speed method reading (de Freitas et al., 2018). Results of the reading ability test of students who were given the Sangkuriang text to train or test related to student understanding, using the speed method reading (YUNI, 2021). The following are the results of students' text reading ability tests in each cycle.

Based on the table of effective reading speed in pre-cycle, cycle I, and cycle II, there was an increase in cycle I, but students' reading speed can be categorized as follows (Castles et al., 2018).

Table 3. Recapitulation of reading speed for fifth grade students at SDN Nameng 1

Reading speed category	Classification	Amount
170-180 wpm (words per minute)	Very fast	14
150-160 wpm (words per minute)	Fast	9
120-140 wpm (words per minute)	Currently	3
90-110 wpm (words per minute)	Slow	-
60-80 wpm (words per minute)	Very slow	-

As a result of the pre-action carried out by 26 students, only 17 students completed their studies with grades that met the learning completion standards. The average percentage score is 6.9, 26 with classical learning completeness being 25% of the pre-action results, so it can be seen that there are still many students who are not able to read quickly well. So the author concludes that action needs to be continued by applying the speed method reading (Clark et al., 2021). Furthermore, the results of implementing cycle I actions are in accordance with the success criteria, the action is said to be successful if 75% of the total number of students get a minimum score of 80. The process of learning to read using the speed method reading results in greater scores. Initial condition 69,27 increased to 72,35. So the actions of cycle I are said to be successful. In line with the results

of the implementation of the first cycle of action from the results of reflection, several factors were found which were the main causes of students' weak speed reading ability in implementing Indonesian language learning, including: students' interest in learning to read using the speed method reading is still low, students' interest in reading quickly is still lacking, students are not yet focused on reading, and then students are more likely to have fun chatting with their friends. This indirectly makes students unable to read well. Implementation of the second cycle of action where the results of teacher and student observations as well as the results of the end of cycle test greatly increased to 80.46 % in the very good category (Olson et al., 2021).

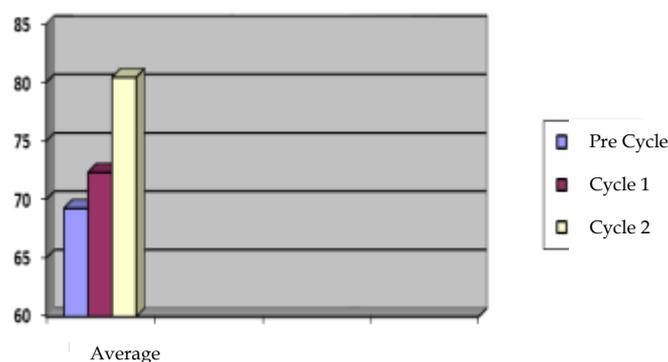


Figure 1. Graphs The Average Pre-Cycle, Cycle 1 And Cycle 2

It can be seen from the picture above that the average score obtained by students increased significantly in the first cycle, this happened because students were enthusiastic about participating in learning activities and likewise in the second cycle there was an increase as well (Oczkus, 2018).

Conclusion

Analysis of fifth grade students' reading ability in cycles I and II using the speed method reading has increased, namely in cycle I the average value 72,35 and in cycle II the average value reached 80,46 based on this data, it is not only completed with a KKM score of 70 but also classically completed, namely 85 %, so learning using the speed method reading in improving speed reading skills is very well implemented at Elementary School Karaton 1, in the use of the speed method This reading can improve students' reading skills. When using the speed method reading students can be enthusiastic about reading other literature and it really helps readers to know the main ideas of their handbook. From the results of the statement above, it can be concluded that the teacher guides and teaches students to read in a structured manner according to the Rencana Pelaksanaan Pembelajaran (RPP), with the conclusion

above that the students' ability to read quickly in learning Indonesian through the speed method reading has increased.

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Authors Contribution

Investigation, Y.S., A.H., D.T.R, and I.S; formal analysis, M.F., U.S.M., A.M, and I.S; resources, D.T.R., Y.S and I.S; data cuartion, Y.S., A.H., D.T.R, and I.S; writing-review and editing, A. and All authors have read and agreed to published version of the manuscript.

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Conflicts of Interest

We certify that theres is no conflict of interest with any financial, personal and other relationships with other peoples or organization related to the material discussed in the manuscript.

References

- Aquino, J., & Tingson, J. (2021). Addressing Reading Comprehension Difficulties in Printed Modular Distance Learning: A Case Study. *International Journal of English Language Studies*, 3(10), 01-06. <https://doi.org/10.32996/ijels.2021.3.10.1>
- Artawan, G. (2020). Narrating in Cooperative Learning Integrated Reading and Composition (CIRC) Learning in Elementary School to Improve Reading Skills. *JPI (Jurnal Pendidikan Indonesia)*, 9(2), 171-181.
- Asrifan, A., & Raskova Octaberlina, L. (2021). The cooperative integrated reading and composition (CIRC) strategy in teaching reading comprehension teaching comprehension. *ScienceOpen Preprints*.
- Barus, I. R. G., Simanjuntak, M. B., & Resmayasari, I. (2021). Reading Literacies Through Evieta-Based Learning Material: Students'perceptions (Study Case Taken from Vocational School-IPB University). *Journal of Advanced English Studies*, 4(1), 15-20. <https://doi.org/http://dx.doi.org/10.47354/jaes.v4i1.98>
- Brodin, J., & Renblad, K. (2020). Improvement of preschool children's speech and language skills. *Early Child Development and Care*, 190(14), 2205-2213. <https://doi.org/https://doi.org/10.1080/03004430.2018.1564917>
- Brysbart, M. (2019). How many words do we read per minute? A review and meta-analysis of reading rate. *Journal of Memory and Language*, 109, 104047. <https://doi.org/https://doi.org/10.1016/j.jml.2019.104047>
- Budia, B. B. (2019). The Use Of Scanning Technique In Improving The Tenth Grade Students'literal Comprehension Through Folklore Text. *E-Journal of ELTS (English Language Teaching Society)*, 1(2).
- Bursali, H., & Yilmaz, R. M. (2019). Effect of augmented reality applications on secondary school students' reading comprehension and learning permanency. *Computers in Human Behavior*, 95, 126-135. <https://doi.org/https://doi.org/10.1016/j.chb.2019.01.035>
- Castles, A., Rastle, K., & Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. *Psychological Science in the Public Interest*, 19(1), 5-51. <https://doi.org/https://doi.org/10.1177/1529100618772271>
- Caswell, D., & Dörr, K. (2018). Automated Journalism 2.0: Event-driven narratives: From simple descriptions to real stories. *Journalism Practice*, 12(4), 477-496. <https://doi.org/https://doi.org/10.1080/17512786.2017.1320773>
- Clark, E., August, T., Serrano, S., Haduong, N., Gururangan, S., & Smith, N. A. (2021). All that's human'is not gold: Evaluating human evaluation of generated text. *ArXiv Preprint ArXiv:2107.00061*. <https://doi.org/https://doi.org/10.48550/arXiv.2107.00061>
- Conklin, K., Alotaibi, S., Pellicer-Sánchez, A., & Vilkaite-Lozdienė, L. (2020). What eye-tracking tells us about reading-only and reading-while-listening in a first and second language. *Second Language Research*, 36(3), 257-276.
- de Freitas, P. V., da Mota, M. M. P. E., & Deacon, S. H. (2018). Morphological awareness, word reading, and reading comprehension in Portuguese. *Applied Psycholinguistics*, 39(3), 507-525. <https://doi.org/https://doi.org/10.1017/S0142716417000479>
- Dickinson, D. K., Nesbitt, K. T., Collins, M. F., Hadley, E. B., Newman, K., Rivera, B. L., Ilgez, H., Nicolopoulou, A., Golinkoff, R. M., & Hirsh-Pasek, K. (2019). Teaching for breadth and depth of vocabulary knowledge: Learning from explicit and implicit instruction and the storybook texts. *Early Childhood Research Quarterly*, 47, 341-356. <https://doi.org/https://doi.org/10.1016/j.ecresq.2018.07.012>

- Haberlandt, K. (2018). 10 Components of Sentence and Word Reading Times. *New Methods in Reading Comprehension Research*, 219.
- Halamish, V., & Elbaz, E. (2020). Children's reading comprehension and metacomprehension on screen versus on paper. *Computers & Education*, 145, 103737.
- Khasawneh, M. A. S., & Al-Rub, M. O. A. (2020). Development of reading comprehension skills among the students of learning disabilities. *Universal Journal of Educational Research*, 8(11), 5335-5341.
- Khusniyah, N. L. (2021). English Extensive Reading Material Needs in Digital Era. *AL-ISHLAH: Jurnal Pendidikan*, 13(1), 763-768. <https://doi.org/10.35445/alishlah.v13i1.560>
- Kosasih Galinggng, C., & Tannuary, A. (2022). Contrastive Analysis between English and Indonesian Quotes in The Utterances of the Character in the Movie " Doctor Strange 2 Multiverse of madness." *Journal of Social Science and Humanities Research*, 1(1), 1-11. <https://doi.org/10.56854/jsshr.v1i1.47>
- Liu, J., & Zhang, J. (2018). The effects of extensive reading on English vocabulary learning: A meta-analysis. *English Language Teaching*, 11(6), 1-15.
- Loh, C. E., & Sun, B. (2019). "I'd still prefer to read the hard copy": Adolescents' print and digital reading habits. *Journal of Adolescent & Adult Literacy*, 62(6), 663-672. <https://doi.org/https://doi.org/10.1002/jaal.904>
- Lubis, F. K., & Bahri, S. (2021). Enhancing Students' Literacy Competence Through Writing Bilingual Folklore Book by IT: Process Approach. *Randwick International of Education and Linguistics Science Journal*, 2(1), 105-115. <https://doi.org/https://doi.org/10.47175/rielsj.v2i1.205>
- Oczkus, L. D. (2018). *Reciprocal teaching at work: Powerful strategies and lessons for improving reading comprehension*. ASCD.
- Olson, R. K., Wise, B., Ring, J., & Johnson, M. (2021). Computer-based remedial training in phoneme awareness and phonological decoding: Effects on the posttraining development of word recognition. In *Components of Effective Reading Intervention* (pp. 235-253). Routledge.
- Pelo, I. S. S. (2020). *Improving Reading Comprehension Through Folklore Story at MAN 1 Palu*. IAIN Palu.
- Pianzola, F., Rebor, S., & Lauer, G. (2020). Wattpad as a resource for literary studies. Quantitative and qualitative examples of the importance of digital social reading and readers' comments in the margins. *PloS One*, 15(1), e0226708. <https://doi.org/https://doi.org/10.1371/journal.pone.0226708>
- Potter, M. C. (2018). Rapid serial visual presentation (RSVP): A method for studying language processing. In *New methods in reading comprehension research* (pp. 91-118). Routledge.
- Pressley, T., Allington, R. L., & Pressley, M. (2023). *Reading instruction that works: The case for balanced teaching*. Guilford Publications.
- Proctor, C. P., Silverman, R. D., Harring, J. R., Jones, R. L., & Hartranft, A. M. (2020). Teaching Bilingual Learners: Effects of a Language-Based Reading Intervention on Academic Language and Reading Comprehension in Grades 4 and 5. *Reading Research Quarterly*, 55(1), 95-122. <https://doi.org/10.1002/rrq.258>
- Rajagukguk, J. (2019). *An English Oblique Translation Analysis of "Twitter" Social Networking Website into Indonesian: An Applied Linguistics Study*.
- Rintaningrum, R. (2019). Explaining the important contribution of reading literacy to the country's generations: Indonesian's perspectives. *Journal of Turkish Science Education*, 11(1), 3-23.
- Ross, C. S. (2021). Making choices: What readers say about choosing books to read for pleasure. In *Readers, reading, and librarians* (pp. 5-21). Routledge.
- Sakamoto, A. (2021). The value of translation in the era of automation: an examination of threats. *When Translation Goes Digital: Case Studies and Critical Reflections*, 231-255. https://doi.org/10.1007/978-3-030-51761-8_10
- Sianipar, H. M. (2022). A Contrastive Analysis between English and Batak Toba Language in Prefixes. *The Explora*, 8(2), 35-44. <https://doi.org/10.51622/explora.v8i2.644>
- Simaremare, S., Silalahi, D. E., Sihombing, P. S. R., & Sinaga, Y. K. (2021). The Accuracy of the Translation of English Verb Phrase into Indonesian Using Google Translate. *Journal of English Teaching as a Foreign Language*, 7(1), 37-46.
- Susanti, L., Junining, E., & Hamamah, H. (2021). Investigating the Implementation of Google Classroom To Improve Reading Comprehension: Advantage and Disadvantage. *Journal of Languages and Language Teaching*, 9(2), 204-211.
- Syafii, M., Ansari, K., & Sinaga, B. (2020). The Design of Teaching Materials Based on Folklore to Enhance the Reading Fast Ability of Primary School Students in Medan City. *The 5th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2020)*, 268-273. <https://doi.org/https://doi.org/10.2991/assehr.k.201124.056>

- Tampubolon, S., & Panggabean, R. (2020). *An Analysis of Kinds, Function, and Position of Question Words in English and Bahasa Batak Toba 2020*.
- Torppa, M., Vasalampi, K., Eklund, K., Sulkunen, S., & Niemi, P. (2020). Reading comprehension difficulty is often distinct from difficulty in reading fluency and accompanied with problems in motivation and school well-being. *Educational Psychology, 40*(1), 62–81.
<https://doi.org/10.1080/01443410.2019.1670334>
- Wexler, J., Kearns, D. M., Lemons, C. J., Mitchell, M., Clancy, E., Davidson, K. A., Sinclair, A. C., & Wei, Y. (2018). Reading Comprehension and Co-Teaching Practices in Middle School English Language Arts Classrooms. *Exceptional Children, 84*(4), 384–402.
<https://doi.org/10.1177/0014402918771543>
- YUNI, F. (2021). *An Analysis Of Students Problem In Writing Spoof Text At The Eleventh Grade Of Smk Pgri 4 Bandar Lampung In The Academic Year Of 2020/2021*. UIN Raden Intan Lampung.