

RIWAYAT ARTIKEL JURNAL/PROSIDING

Judul Artikel	:	Developing a Local Genius Based Pocket Book for Character Strengthening Elementary School Students
Author	:	Dhiniaty Gularso <sup>1</sup> , Riawan Yudi Purwoko <sup>2*</sup> , Sujatmiko <sup>3</sup> , Wharyanti Ika Purwaningsih <sup>4</sup> , Farissa Ayu Nor Ingtias <sup>5</sup> <sup>1,3</sup> Universitas PGRI Yogyakarta, Indonesia <sup>2,4</sup> Universitas Muhammadiyah Purworejo, Indonesia <sup>5</sup> Sekolah Dasar Teladan Yogyakarta, Indonesia
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1 Developing a Local Genius Based Pocket Book for Character Strengthening  
2 Elementary School Students  
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4 Dhinia Yuli Purnawati<sup>1</sup>, Rajimulita<sup>2</sup>, Widyawati<sup>3</sup>, Ra Purwaningrum<sup>4</sup>,  
5 Fatmaza Nur Hafidza<sup>5</sup>  
6  
7 1,3 Universitas PGRI Yogyakarta, Indonesia  
8 2,4 Universitas Muhammadiyah Purwokerto, Indonesia  
9 5,6 UIN Ar-Raniry Cirebon, Indonesia  
10  
11 Corresponding Author: [raimulita@upgrj.ac.id](mailto:raimulita@upgrj.ac.id)  
12 <https://orcid.org/0000-0001-2488-4673>  
13 <https://orcid.org/0000-0003-4931-7972>  
14 <https://orcid.org/0000-0001-7884-2525>  
15 <https://orcid.org/0000-0001-1115-7609>  
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**Abstract**  
Local wisdom based learning resources are needed to support student-oriented learning, one of which is a pocketbook, but currently, the number is minimal. This study aims to produce a product in the form of teaching materials in the form of a pocketbook based on local wisdom that has a proper and effective procedure for elementary school students. This research includes research and development research by creating the ADDIE research method. The research was conducted in an elementary school in Yogyakarta, Indonesia. The results of the development of material, teacher responses, student responses, learning motivation, observation sheets, pre-test, and post-test were obtained in this study. The data analysis technique was paired sample t-test, percentage, and average. The results of this study are as follows: (1) the material expert rated that the pocketbook for local genius students can use with very good criteria. Material experts assessed with good criteria; (2) the effectiveness of the pocketbook is very good. This can be seen from the value of student achievement. The observation sheet by the implementation of the learning process is very good. Student achievement increased, as indicated by the average score of pre-test and post-test. The pocket book based on local genius was declared effective. All statements by the results of the t-test calculation. The pocket book based on the developed local wisdom had a positive impact. This can potentially be used for elementary school students as a viable teaching material for strengthening student character.

**Keywords:** elementary school, teaching material development, pocketbook, local genius

**INTRODUCTION**  
Education is a basic need and right of every human worldwide, including Indonesia. Education in Indonesia plays a role in improving the quality and optimizing the development of a student's abilities in knowledge, skills, spiritual growth, behavior, and personality in society. An educational process that runs effectively and efficiently requires adequate and very appropriate learning resources, teaching materials, and learning media in the learning process (Sidiq, et al., 2021). The single factor influencing learning is what the learner has learned or knows (Asmubill et al., 1976).  
The Indonesian government through the Ministry of Education and Culture Research and Technology has indeed prepared learning resources for teacher books and student books

1 published by the Book Center. However, the teacher's book and the student's book are still in  
2 the form of general knowledge. Furthermore, the teacher still has to have an idea to integrate  
3 other knowledge in learning in elementary schools. Teachers can develop more creative and  
4 innovative teaching materials (P. Singa et al., 2023). The development of teaching materials  
5 must also be in accordance with the conditions, social and cultural situations of students  
6 according to their environment (Suyitno et al., 2020). The development of teaching materials  
7 when used in the learning process, students are more interested and learning is more  
8 meaningful (Purwoko, Nugraheni, et al., 2019). One form of developing teaching materials  
9 that can be used as a companion to the learning process is the use of teaching materials in the  
10 form of pocketbooks. Pocketbook can be used as effective teaching materials for all levels of  
11 education such as elementary school (Singa et al., 2017), junior high school level (Aisyah et  
12 al., 2020), (Ika et al., 2020), (Lestari, 2016), (Roslidyah et al., 2022), and high school level  
13 (Chayono et al., 2018), (Nurhayati, 2019), (Sriaga and Rahmawati, 2022). Pocketbooks can  
14 be developed at every level of education and according to the needs of students.  
15 A pocketbook is a small book which contains information that can be stored in a pocket  
16 so that it is easy to carry everywhere (Lestari et al., 2011). While the pocketbook can also be  
17 integrated as a book with a small size so that it is more efficient, practical, and easy to  
18 use (Hidayati et al., 2020). Based on the two opinions above, it can be concluded that a  
19 pocketbook is a small, attractive, practical book to carry anywhere that contains some  
20 information and material. Subject matter that can be taught with the help of pocketbook  
21 including natural sciences material (Sriaga et al., 2017), (Aqshah and Shih, 2016), (Nurhayati,  
22 2019), (Rosdyanah, 2021), social sciences material (Lestari, 2016), and mathematics material  
23 (Chayono et al., 2018), (Ika, Karim, and Wirontono, 2021), (M. S. Singa & Rahmawati, 2022).  
24 During the current COVID-19 pandemic, students have a tendency to be less interested  
25 in reading thick books. The textbooks that have been prepared by the teacher are less  
26 attractive to students because of their relatively large size and the lack of supporting pictures.  
27 Teachers can develop more creative and innovative teaching materials (Atmaja et al., 2020);  
28 (Abubakar, 2021); (Sani et al., 2022). The development of teaching materials must also be in  
29 accordance with the conditions of the social and cultural situations of students in their  
30 environment (Dh. Farida et al., 2020). The development of this pocket book will be more  
31 attractive with colors and illustrations and pictures, which is preferred by students. The  
32 development of teaching materials is expected to be able to make students interested in  
33 carrying out a memorable and meaningful learning process in accordance with the conditions  
34 of local genius where students are located (Utami et al., 2021).  
35 Students at Gamping Elementary School also declared interested in studying books. Based  
36 on the results of interviews conducted with fifth-grade teachers in the learning process, the  
37 lack of supporting books or companion books and the lack of inclusion of local genius materials  
38 in Siemtan Regency have caused students to lack understanding of local genius around their  
39 homes. The teacher said that when students were asked what culture existed in Siemtan  
40 Regency, students only answered the culture of their village environment, namely Babakan,  
41 Kumbulan, and Gunungan. Students do not answer local genius from other villages or sub-  
42 districts in the Siemtan Regency area, so the development of teaching materials based on local  
43 genius is needed to improve students' understanding of local genius. The teaching materials  
44 used by the Gamping Elementary School still have shortcomings, including those that are still  
45 incomplete and interesting, so some students have not yet completed the learning process.

1 These shortcomings make authors interested in developing pocket book teaching materials  
2 based on local genius at Gamping Elementary School, Siemtan Regency.  
3 Local genius must be part of the material being taught. In learning activities either  
4 directly or integrated (Purwoko, Anus, et al., 2019). According to Ki Hadjar Dewantara, good  
5 learning is learning that combines culture and nature (Guisano et al., 2020). Kultur means  
6 culture, while natura means the environment. Local genius-based learning combines cultural  
7 material with the needs of the natural surrounding. The goal is that students have a strong  
8 character in Indonesian culture (Atmaja et al., 2018). Character is fundamental to one's future  
9 (Guisano et al., 2019). Education in Indonesia should be able to improve existing local values  
10 and synergize with the needs and potential of existing resources in an area with all its  
11 limitations. Thus, it is hoped that students will be able to understand and preserve local genius  
12 around their environment. In addition, it is also expected that students are also expected to  
13 maintain local genius amid large currents, globalization, as written in Law No. 20 of 2003  
14 article 36 paragraph 2, namely "Development of diversified curriculum development is  
15 intended to allow the adjustment of education programs to educational units to the conditions  
16 and peculiarities of the potential that exists in the region."  
17 In the learning process, the teacher can integrate the local genius values into the local  
18 environment. Teachers are expected to be able to design and develop teaching materials by  
19 the socio-cultural conditions of the community and the socio-cultural needs of students, as  
20 well as the characteristics of the school environment. Teachers must also be creative in  
21 developing teaching materials concerning local genius in their teaching environment. The  
22 process of integrative learning needs to pay attention to the selection of material used for this  
23 learning must also be enough or not too little or too much (Sani et al., 2021). If the material  
24 presented is too little, it will not include the expected competencies and not the student's  
25 needs (Purwoko, 2017) (Sulistyowati et al., 2019). The selection and retrieval of materials must  
26 also be appropriate for integrating local genius. The relevant material for integrating local  
27 genius in fifth grade is found in the human and environment sub-theme. The sub-theme  
28 discusses human, culture, phenomena, and activities in the neighborhood so that can  
29 integrate local genius around us in the learning process.  
30 Every region in Indonesia has different characteristics of local genius. The local genius  
31 also has many variations. Indonesia has a diversity of cultures, ethnicities, and customs.  
32 Indonesia has a lot of cultures because Indonesia consists of several islands that are scattered  
33 and have various ethnic groups, languages, customs, cultures, traditions, and many others  
34 that are different so that they can become a characteristic of the region. Indonesia has the  
35 most regional languages in the world after Papua New Guinea, which is 718 regional languages  
36 (Bullone, 2021) and 1300 ethnic groups (Ridha et al., 2021). A local genius is a form of human  
37 behavior that changes over time, up to norms and actions and behavior, so that local genius  
38 can become like human region in acting and acting, both in the context of daily life and  
39 determining human civilization that local genius if developed in the economic field can  
40 increase independence, empower the community and increase economic income (Indriani, D.,  
41 & Sidiq, A., 2019).  
42 Developing local genius-based teaching materials can increase students' learning  
43 media in recognizing and understanding the local genius in the surrounding environment.  
44 Based on the results of interviews in several elementary schools at Siemtan Regency,  
45 Yogyakarta, many teachers still did not develop their teaching materials based on local

1 genius. Students lacked teaching materials or companion books in the learning process and did not introduce the culture of local genius (Sriyaningrum, 2019). The development of material based media has been submitted to prospective elementary school teacher students (Lianjuro et al., 2017). There are a number of limitations in the study to develop a supporting book for the content of local genius. This study's pocketbook teaching material is one of the printed teaching materials. Based on the results of the interview conducted with fifth-grade teachers at Gamping Elementary School, information was obtained that in the learning process, there was a shortage of supporting books or teaching materials that developed local genius about Siemang Regency. This deficiency is due to the student books used being national student books published by the book center of the Ministry of Education and Culture. The teacher has not developed the textbooks used by the local genius of Siemang Regency. This lack of information in textbooks related to local genius causes students to lack understanding of local genius around their place of residence. Based on the students' need to understand the local genius, pocketbook teaching materials were developed according to the basic competencies of fifth-grade students on the human and environment sub-theme, with an attractive appearance.

20 **METHOD**

21 This study is research and development (RnD) research. The research was conducted on December 2020 - June 2021. The study location at Gamping Elementary School, Yogyakarta Special Region, Indonesia. The subject of the product trial was the fifth grade students. A limited research trial consisting of 7 students. This study procedure after the development of the ADDIE research method (Analysis, Design, Development or Production, Implementation or Delivery and Evaluation) which was developed by Dick and Carey (Juwana et al., 2015).

22 Data collection techniques were questionnaires, interviews, and tests. The data collection instruments used were media expert instruments, material expert instruments, teacher learning implementation observation sheets, student response questionnaire instruments, teacher response questionnaire instruments and student test question sheets.

23 The analytical techniques used are shown in Table 1.

Table 1. Data, Data Collection and Data Analysis

Aspects	Data	Data	Data
	collection	collection	Analysis
Material experts	Material experts	Questionnaires	$\bar{X} = \frac{\sum F_i \cdot X_i}{n}$
check list	check list		
Validity	Validity	check list	$r_{xy} = \frac{\sum x \cdot y}{n \cdot \sigma_x \cdot \sigma_y}$
reliability	reliability	reliability	
question	question		

1 **Development**

2 At this stage, authors not only developed teaching materials, but also prepared supporting components such as instruments, syllabus, and lesson plans, including initial plans for developing pocket book content (Lianjuro et al., 2017). After developing syllabus, developing lesson plans, and the validation stage (material experts, media experts) until the final stage of the preparation of the pocket book. A good syllabus and lesson plans are learning tools that must be made by teachers. The good category here is the syllabus and lesson plans made by the teacher by considering the conditions of the students and the environmental conditions around the school.

3 **Implementation**

4 In this implementation stage, the examiner conducted a limited trial with a sample of fifth grade students at Gamping Elementary School (Figure 4). In this study, data was obtained in the form of teacher responses, student responses, and the results of the pretest and posttest of 7 students of fifth grade students in the learning process using a pocket book based on local genius. In this study, the results of the student response and questionnaire were conducted to determine students' attitudes and learning process using a pocket book based on local genius. The results of this teacher's response were carried out with the aim of knowing the teacher's response to the learning process using pocket book teaching materials based on local genius. The objectives of the pretest and posttest in this study are to determine the process using a pocket book based on local genius aims to determine the teacher's delivery,

5 **Achievement and Effectiveness**

6 achievement and effectiveness in using pocket book teaching materials in the learning process.

7 **Product Assessment Result**

8 product assessments in this discussion include material expert assessments, media expert assessments, teacher assessments/responses, student assessments/responses and student achievement results including average grades, learning completeness and the effectiveness of pocket book teaching materials based on local genius. Material expert assessment includes aspects of content assessment and language feedback. The expert assessment of teaching materials includes an assessment of the content and grammatical aspects of the language. The teacher's assessment/responses include an assessment in terms of student interest, student convenience, and the ability to carry out tests and display research products. Student assessments/responses include the attractiveness and practicality of students in using the product of this study. Table 5 shows the results of the recapitulation of the assessment of pocket book teaching materials based on local genius.

9 **Recapitulation of Assessment**

10 The results of the effectiveness of using pocketbook based on local genius can also be strengthened based on the t-test on the two-tailed difference in paired data. Before conducting the T-Test, the authors conducted a prerequisite analysis test, namely the normality test and the data homogeneity test. Normality test was used to determine whether the data was normally distributed or not. The normality test used in this study was Kolmogorov-Smirnov using the SPSS 25 application. Based on the decision making in the normality test as follows, if p > 0.05 (Significance) or probability score > 0.05 then the data was normally distributed. Based on the normality test table above, it was known that the test significance score was 0.783 while the posttest score was 0.088. Based on the test results above the score of Sig. (2-tailed) was greater than 0.05, so the pretest and posttest data above was normally distributed (Table 5).

11 The conclusion was that the pocketbook product based on local genius was feasible and effective to use in the learning process for fifth grade students at Gamping Elementary School. Local genius must be mastered in every learning at school so that students remain rooted in the unique and distinctive local culture and character of Indonesia even though globalization has made the tendency of society become homogeneous (Sudirodarmo et al., 2018). (Arianti et al., 2021). Preserving local genius is one way to maintain social values (Nasir & Andriani, 2018). This pocketbook based on local genius is one way to preserve the cultural values in Siemang community of Yogyakarta through learning in elementary schools. graphical results here. Make sure to describe all figures and add references if needed, add statistical analysis here.

Aspects	Data	Data	Data
	collection	collection	Analysis
Material experts	Material experts	Questionnaires	$\bar{X} = \frac{\sum F_i \cdot X_i}{n}$
check list	check list		
Validity	Validity	check list	$r_{xy} = \frac{\sum x \cdot y}{n \cdot \sigma_x \cdot \sigma_y}$
reliability	reliability	reliability	
question	question		

21 **Table 2. Testbook Criteria**

Percentage Interval	Score Scale	Classification
85% - 100%	A	Very good
75% - 84%	B	Good
65% - 74%	C	Sufficient
55% - 64%	D	Less
0% - 54%	E	Very less

### RESULT AND DISCUSSION

1 This study provides information about the stages of preparation of pocket book learning media and the implementation of media results related to the effectiveness and feasibility of pocket books in learning in the following discussion.

2 **Product Development**

3 Based on interview result with the fifth grade teacher, Gamping Elementary School on December, 2020, the information found as follows: (1) students need teaching materials that are able to assist students in the learning process, (2) lack of student understanding of

4 the culture in Indonesia and the local culture in Siemang Regency, (3) teachers are still encouraged to use books provided by the government while the coverage of material presented in student books is still not comprehensive, (4) lack of pictures, illustrations that support students' knowledge of the learning process, (5) the size of the teaching materials is too large, so students are not interested in using them.

5 From the information and opportunities above, the authors will develop a pocket book teaching material product based on local genius. This pocket book was developed referring to the 2013 Curriculum. The sub-themes used as objects of development was the human and environment sub-themes. The development of this pocket book teaching material will develop the material to be more in-depth and comprehensive so that it can meet the student's need in the learning process. This pocket book was also developed to help teach students to recognize and understand the importance of preserving culture in Indonesia, especially local culture in the Siemang Regency area. In addition, the development of teaching materials also aims to attract students' interest in learning so that students can improve their learning achievements. If students are interested in a learning process based on local wisdom, the learning will be carried out meaningfully and leave an impression on the students (Nuraini, 2021).

6 **Design**

7 At this stage, the authors prepared all the components that will be displayed in the pocket book that will be developed including: designing learning activities, designing materials, designing learning evaluations and designing structures and covers (Figure 2), at this stage, one thing that must be considered is the use of fonts in teaching materials. Font is a complete collection of letters, numbers, symbols, or characters that have certain sizes and characteristics. Fonts are an important part of graphic design, without fonts a design is difficult to understand because fonts contain the alphabet and symbols for non-verbal languages (Nyman et al., 2022).

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Figure 2. Early Designs of Pocket Book Based on Local Genius

No	Aspect	Result	Criteria
1.	Material expert	88%	Very good
	A content assessment	84%	Very good
	B. Language feasibility	84%	Good
	C. Chart aspect	89%	Very good
2.	Teacher feasibility	85%	Very good
3.	Teacher's response	85%	Very good
4.	Student response	85%	Very good
5.	Product effectiveness	Significant score (t - tailed = 0,005 < effective tailed: 0,02)	Increase
	Average score	Pre test = 64	Increase
		Post test = 88	Increase
	Students' completeness	Pre-learning process = 20%	Increase
		Post-learning process = 80%	Increase

6 Before conducting the field testing, the developed teaching materials must be validated. A teaching material is declared to be feasible to use in the learning process, if it gets an assessment or validation from an expert. The experts used in this study were material experts and media experts. The material expert was a fifth grade teacher at Gamping Elementary School. The teacher was chosen because the competence of the fifth grade teacher was better than other class teachers. The fifth grade teacher had better understood the material being taught. The assessment of teaching materials expert was carried out by lecturers of the PGSD RP UPV study program who was in charge of the learning media development course for elementary school. The selection of the lecturers took into account the expertise and competence in the field of developing learning media development for elementary school.

7 From the results of the assessment given by material experts regarding the development of teaching materials, this pocket book received 88%. If the percentage result is seen in the scoring instrument of the material expert assessment, the result is seen in the percentage interval of 85% - 100% with the 'Very Good' criteria. In the assessment of material experts, meanwhile, when it was compared with research conducted by (A. Siringo & Hilmawati, 2022), there was a difference of 8 points lower because it got 84%. The content feasibility aspect got 8 points higher rating than the language aspect. The same thing was also experienced by (A. Siringo et al., 2021) where the language aspect had a lower score of 2 points than the content feasibility aspect. The results of the validation of the language aspect in this study was 75 points higher than the research conducted by (A. Siringo & Hilmawati, 2022) where the language aspect had 63.3%.

8 Pocketbook based on local genius must also be assessed or validated by media experts. The goal was that the pocket book teaching material that had been made get input from teaching materials experts. In this study, the validator of teaching materials was a PGSD RP UPV lecturer who taught learning courses for elementary school. Based on Table 5, the results of the assessment given by media experts regarding the development of pocketbook

Table 5. The Assessment of Pocket Book Based on Local Genius Recapitulation

No	Aspect	Result	Criteria
1.	Material expert	88%	Very good
	A content assessment	84%	Very good
	B. Language feasibility	84%	Good
	C. Chart aspect	89%	Very good
2.	Teacher feasibility	85%	Very good
3.	Teacher's response	85%	Very good
4.	Student response	85%	Very good
5.	Product effectiveness	Significant score (t - tailed = 0,005 < effective tailed: 0,02)	Increase
	Average score	Pre test = 64	Increase
		Post test = 88	Increase
	Students' completeness	Pre-learning process = 20%	Increase
		Post-learning process = 80%	Increase

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Table 6. T-Test Result

	Mean	Std. Deviation	95% Confidence Interval of the Difference	t	Sig. (2-tailed)
Pre POSTEST	23,8	13,259	10,12	11,294	36,120 < .005
t(1)	PRETEST				

12 The research product in the form of developing an effective pocketbook for learning has also been carried out with the result that 88% of students experienced an increase in learning (Arianti et al., 2021). Then learning achievement and student critical thinking skills not only increased, as evidenced by the Gain test significance score of 0.42 (Mulyanti, 2019). Judging from several aspects that strengthen the effectiveness of developing teaching materials, ranging from teacher responses, student responses, observation of learning implementation, and student achievement, the study results show that the local genius-based pocket book teaching materials have a good level of effectiveness for use in learning. The learning process of the sub-theme of humans and the classroom environment in fifth-grade students of SD Gamping. Learning achievement in the learning process also experienced a significant change, with an increase of 30% from pretest to posttest questionnaires.

13 The conclusion was that the pocketbook product based on local genius was feasible and effective to use in the learning process for fifth grade students at Gamping Elementary School. Local genius must be mastered in every learning at school so that students remain rooted in the unique and distinctive local culture and character of Indonesia even though globalization has made the tendency of society become homogeneous (Sudirodarmo et al., 2018). (Arianti et al., 2021). Preserving local genius is one way to maintain social values (Nasir & Andriani, 2018). This pocketbook based on local genius is one way to preserve the cultural values in Siemang community of Yogyakarta through learning in elementary schools. graphical results here. Make sure to describe all figures and add references if needed, add statistical analysis here.

	 <p>1 A pocket book based on local genius is feasible and effective for students to use as a 2 companion book for thematic books that the Indonesian government has prepared. The 3 pocket book based on local genius is said to be feasible because it has been validated by media 4 experts and got a score of 86% in the very good category, and has been validated by teaching 5 materials experts and got a score of 84% with good criteria. In addition, the teacher's 6 assessment response is 85% and the student response is 80% which is also included in the 7 very good category. Local genius-based pocket books are effective because they can increase 8 the average value of student learning by 24 points and increase the percentage of students 9 completeness by 6%, with a significance value (<math>Z - \text{sig}</math>) of 0.002. The pocket book based on 10 local genius that has been developed is recommended as a learning resource that has a 11 positive effect on elementary school students and can be developed according to the 12 characteristics of each student and school.</p> <p>14</p> <p>15 <b>SUGGESTIONS</b></p> <p>16 Teachers are expected to have creativity in developing learning materials and resources. In 17 particular, by utilizing local genius as a context in learning so that students are close to the 18 existing reality and for increasing student character. In addition, pocketbooks as a companion 19 reference to the main book can be used because they are proven to be very practical and 20 accepted by students.</p> <p>21</p> <p>22 <b>LIMITATIONS</b></p> <p>23 This research is limited to the fifth grade of elementary school on the sub-themes of humans 24 and the environment. The learning process cannot be maximized due to the COVID-19 25 pandemic, so a policy of limiting activities is carried out. As a result, not all students can fully 26 participate in school. In this regard, conducting further research on other relevant themes and 27 subjects is necessary using a posttest design based on local genius.</p> <p>28</p> <p>29 <b>REFERENCES</b></p> <p>30 Afranti, N., Aulian, D., &amp; Yuzri, M. (2021). Implementation of the E-Pocket Book to Improve 31 Learning Outcomes in Economics at Madrasah Aliyah Madinatuzsalam, Bandar Khalifah 32 Regency, Indonesia. <i>Eurasian International Research and Critica in Linguistics and 33 Education (EIRIC) Journal</i>, 4(1), 125-131. <a href="https://doi.org/10.33258/EIRIC.V4I1.1596">https://doi.org/10.33258/EIRIC.V4I1.1596</a></p> <p>34 Alshakib, M. A. (2022). Distance education and the social literacy of elementary school 35 students during the COVID-19 pandemic. <i>WJTS</i>, 6(08), 4098-4111. 36 <a href="https://doi.org/10.1016/j.wjts.2022.08.011">https://doi.org/10.1016/j.wjts.2022.08.011</a></p> <p>37 Arifin, M., Putra, A. P., Purto, A. A. 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