# Development of Domino Card Learning Media for Puppet Stories on the Competence of Understanding the Content of the Text of the Ramayana Puppet Story (Resi Jatayu) Grade VIII Junior High School

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## ABSTRACT

The research was motivated by the fact that many grade VIII students of SMP Negeri 1 Juwiring still have difficulty understanding the content of the text in the *Resi Jatayu* story, as well as by the lack of learning media, which leads to monotonous learning. This research aims to develop learning media in the form of domino card *puppet* stories to improve learning outcomes and understanding of the content of the text of the *Ramayana* story (*Resi Jatayu*). The research method uses the Research and Development (R&D) approach. The data collection techniques used were a needs questionnaire, interviews, and a validation test questionnaire. The data analysis employed is qualitative descriptive data analysis. The results of this study produced a domino card learning media for *puppet* stories based on the analysis of students' needs. It was designed using the Adobe Illustrator application, resulting in 40 domino card designs that include pictures, story excerpts, practice questions, and are accompanied by a guidebook. Based on the media feasibility category, the domino card material validation test obtained a result of 91.67%, which is included in the "very feasible" category. Meanwhile, from the results of the domino card media validation test, a result of 87.5% was obtained, which was also included in the "very feasible" category.

*Keywords: media education; domino card; resi jatayu*

## INTRODUCTION

Learning media is a tool or means used in learning activities to help students master learning materials in a more effective way (Mahmud et al., 2023). In its use, learning media certainly has an important role. By using learning media, teachers find it easier to convey information and can increase students' interest in learning (Rohani., 2020). The use of appropriate learning media can optimize students' understanding of learning material (Wasiyah Fitriana Y. & Bakara T., 2023).

Based on their nature, learning media can be divided into three types: visual media, audio media, and audio-visual media (Maisarah et al., 2023). The selection of the type of learning media is, of course, something that must be considered. The use of appropriate learning media will facilitate the delivery of material in learning (Audia et al., 2021). The selection of learning media can be adjusted to align the types of learning media with the learning objectives so that learning can run more smoothly (Ibda, 2019).

Of the many types of learning media used, domino card learning media is one that is easy to use. *Domino* cards are generally small cards measuring 3x5 cm, yellow in color with black dots that serve as a substitute for numbers (HN et al., 2023). The advantages of using

card media in learning include ease of manufacture, portability, ease of presentation, ease of storage, suitability for use in both large and small group settings, and the ability to be used as a means of educational games (Aulya et al., 2021). The use of conventional media such as card media can improve cognitive development in students (Patria Saroinsong Anggraeni N. & Mulia Putri I., 2021). Until now, there have been many learning media that use *domino* card games as an alternative to learning.

For example, previous research produced *Dawa* learning media (*Domino Aksara Jawa*) to improve Javanese script reading skills in grade III elementary school (Yushofah & Subrata H., 2021). Research by Bulan & Idhar (2021) focused on the development of *Noun Words Domino Card* (NWDC) learning media, which is used to improve English vocabulary knowledge at SMP Negeri 8 Satap Woja, Doja, West Nusa Tenggara. There is also research on the development of Javanese script *domino* learning media products to improve the memory of grade IV students at SD Brawijaya Smart School Malang (Larasati, 2019).

In this study, the researcher conducted research on the development of *domino* card learning media for the *Ramayana puppet* story (*Resi Jatayu*), which can be used in Javanese language subjects to achieve learning outcomes in understanding the content of the text of the *Ramayana* story (*Resi Jatayu*) for grade VIII junior high school students. It is hoped that with the development of the *Ramayana wayang* story *domino* card learning media (*Resi Jatayu*), students will be able to better understand the *wayang* story learning material and teachers will be able to maximize the use of learning media. This development research is also expected to overcome monotonous learning and attract students' interest in achieving better understanding of the *Ramayana puppet* story (*Resi Jatayu*).

Understanding the content of the text of the *Ramayana* story in the play *Resi Jatayu* is one of the learning outcomes applied in the current Javanese language subject curriculum for grade VIII junior high school, including at SMP Negeri 1 Juwiring. In the application of these learning outcomes, various problems arise for both teachers and students. According to the teacher's statement in interview results, during lessons on understanding the content of the text of the *Ramayana* story (*Resi Jatayu*), many students pay attention to the teacher's explanation and actively ask questions related to these learning outcomes. However, many students also desire more varied learning methods within these learning outcomes. Students still find it difficult to understand the content of the *Resi Jatayu* story because of the variety of languages used. The lack of additional learning media, the reliance on the lecture method, and limited learning time are also factors that hinder students from understanding the content of the *Ramayana* story in the play *Resi Jatayu*.

The purposes of this study are to: (1) describe the analysis of the needs for *domino* card learning media of the *puppet* story in achieving learning outcomes related to understanding the content of the *Ramayana puppet* text (*Resi Jatayu*) for grade VIII junior high school students; (2) describe the design of the *domino* card learning media of the *puppet* story in achieving learning outcomes related to understanding the content of the text of the *Ramayana puppet* story (*Resi Jatayu*) for grade VIII junior high school students; and (3) describe the results of the validation test of the *domino* card learning media of *puppet* stories in achieving learning outcomes related to understanding the content of the text of the *Ramayana puppet* story for grade VIII junior high school students. The benefits of this research include providing teachers with an innovative tool to improve students' understanding of the *Ramayana*, thus overcoming

the monotony of conventional teaching methods and addressing the difficulties students face due to complex language.

**METHOD**

The research design used in this study is the Research and Development (R&D) research design. In general, there are eleven steps in research and development, which include: (1) potential and problem identification, (2) information gathering, (3) product design, (4) design validation, (5) design improvement, (6) product creation, (7) product testing, (8) product revision 1, (9) usage trials, (10) product revision 2, and (11) mass product manufacturing (Sugiyono., 2021). Based on the needs of the research and the problem formulation, this study adopts five steps from the above research stages, namely: (1) potential and problem identification, (2) information gathering, (3) product design, (4) design validation, and (5) design improvement.

The time and place of the research are set for February 1, 2025, at SMPN 1 Juwiring. The data sources for this research were obtained from students, teachers, material experts, media experts, as well as books and previous research. The data in this study were collected from student needs questionnaire responses, teacher interview data, and material and media validation test results. Additionally, other data were obtained from various sources, including previous scientific research and books accessed both online and offline.

The data collection techniques employed included questionnaires administered to students, interviews conducted with teachers, and design validation questionnaires given to material and design experts. The data analysis technique used in this study is qualitative descriptive analysis.

**RESULTS AND DISCUSSION**

**Student and Teacher Needs Analysis**

Based on the results of the analysis of the needs of teachers and students, it can be concluded that there are still many students who still find it difficult to understand the content of the Ramayana story (Resi Jatayu). This is because students feel that the variety of languages used in the Ramayana story (Resi Jatayu) uses a variety of language which makes students still find it difficult to understand (Hassan et al., 2020; Rini & Supardi, 2019). Many students are tired of using modules in learning to understand the content of the Ramayana story (Resi Jatayu). Students and teachers agree that there are additional game-based learning media in the learning outcomes of understanding the content of the text of the Ramayana story (Resi Jatayu) (Nugroho, 2020; Widodo et al., 2021). Teachers hope that the development of this learning media can maximize the use of learning media (Rahmat & Irawati, 2020; Yanti et al., 2019).

**Domino Card Media Design Puppet Story**

In the design of learning media in this study, it is based on the analysis of the needs of students and teachers. Additional learning media is game-based, not boring, and the variety of languages used is easy for students and teachers to understand (Suhendri et al., 2021; Gunawan & Suryani, 2020). The material used in this media is the story of the Ramayana (Resi Jatayu). The media developed is in the form of domino card media for the story of the Ramaya puppet (Resi Jatayu) (Mokhtari & Hasti, 2019; Hidayat & Sari, 2021). The media of

the domino card of the puppet story was designed using the Adobe Illustrator application. In the design of this learning media design, 40 domino cards of puppet stories were produced which included pictures of story scenes, excerpts of story content, and practice questions (Andriani et al., 2020; Lestari et al., 2018). This media design is also equipped with instructions on how to play domino cards in puppet stories (Hidayah & Ikhlas, 2020; Priyanti & Rosyida, 2021).



**Figure 1. Puppet Story Domino Card Design Display**

The card image is dominated by red, green, yellow, brown, and beige colors. The combination of dark and light colors is made so that the look is not boring. The puppet characters in the Ramayana story (Resi Jatayu) are also made into animated characters so that their appearance attracts more students' interest in learning.



**Figure 2. Story and Question Quote Cards**

Cards containing story quotes and practice questions use the Chalkboard font type to add an interesting impression in the media. The use of black is made to be clearly visible when reading. The variety of languages used in the domino card media of puppet stories uses a variety of Ngoko languages. This is made so that students do not find it difficult to understand the content of the Ramayana story (Resi Jatayu).



**Figure 3. Domino Card Handbook Puppet Story**

In addition to covering the procedure for playing domino cards in the story of Resi Jatayu, this guidebook also contains an introduction to the characters in the story. The characters are made animated cartoons so that students add an interesting impression to the domino card media of puppet stories. The introduction of the characters added in the guidebook is made so that students can also recognize the original characters of wayang kulit in Javanese culture.

**Results of Validation Test Analysis**

The validation test in this study was carried out to determine the feasibility of the learning media that has been developed. This validation test includes media and material validation tests. This validation test was carried out using an instrument in the form of a questionnaire consisting of 12 questions and based on the Likert scale. The Likert scale is used to measure a social phenomenon based on the attitudes and views of a person or group Sugiyono. (2022) In this study, the Likert scale is used as follows.

**Table 1. Likert scale**

| Category | Score |
|----------|-------|
| Excellent | 4 |
| Good | 3 |
| Bad | 2 |
| Very Bad | 1 |

The material validation test was submitted to Prof. Dr. RM. Teguh Supriyanto, M.Hum. as an expert validator of the Resi Jatayu puppet story material. In the material validation test questionnaire submitted, there are two aspects of assessment, namely, the content of the material and language. The table of the two aspects is as follows.
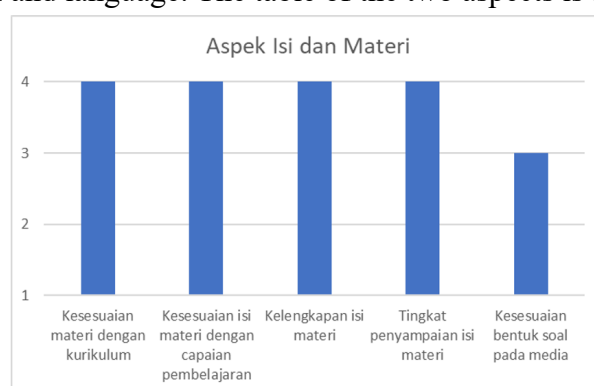


**Figure 4. Graphic Aspects of Content and Material**

In the aspect of content and material, there are several indicators, namely, the suitability of the material and curriculum, the suitability of the material with learning outcomes, the completeness of the material content, the level of delivery of the material content, and the suitability of the form of questions in the media. In the indicator of the suitability of the material with the curriculum, a score of 4 was obtained which was included in the category of excellent. The indicator of the suitability of the content of the material with the learning outcomes obtained a score of 4 which is included in the category of excellent. The indicator of completeness of the material content obtained a score of 4 which is included in the very good category. The indicator of the level of delivery of material content obtained a score of 4 which is included in the very good category. The indicator of the suitability of the

form of the question in the media obtained a score of 3 which is included in the good category. The total number of scores in the content and material aspects is 4+4+4+4+3= 19.
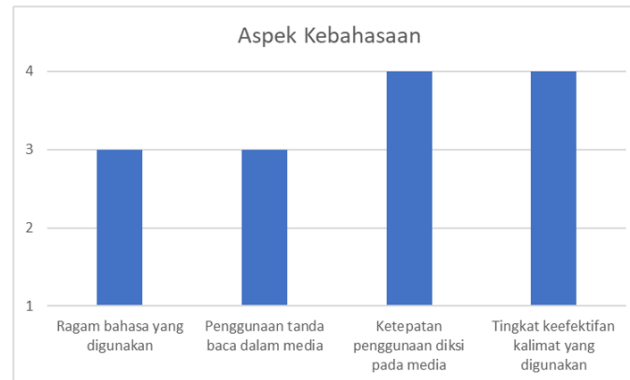


**Figure 5. Graphic Language Aspects**

In the linguistic aspect, there are four indicators, namely, the variety of languages used, the use of punctuation in the media, the accuracy of diction in the media, and the level of effectiveness of the sentences used. The Language variety indicator used obtained a score of 3 which is included in the good category. The indicator of the use of punctuation in the media obtained a score of 3 which is included in the good category. The indicator of the accuracy of the use of diction in the media obtained a score of 4 which is included in the very good category. The indicator of the effectiveness of the sentence used obtained a score of 4 which is included in the category of excellent. The total number of scores in the linguistic aspect, namely, $3 + 3 + 4 + 4 = 14$.

The total score of all aspects in the validation test of the story material of Resi Jatayu is, $19 + 14 = 33$. Based on this score, the results of the material validation test can be determined using the following formula.

$$Result = \frac{\text{Total score obtained}}{\text{Total score overall}} \times 100\%$$

$$Result = \frac{33}{36} \times 100\%$$

$$Result = 91.67\ \%$$

The media validation test in this study was submitted to Rahma Ari Widihastuti, S.Pd., M.A. as a media validator expert. The assessment in the media validation test can be classified into three aspects which include, the appearance of media design, writing, and media use. The graph table of media validation test results on the design display aspect is as follows.
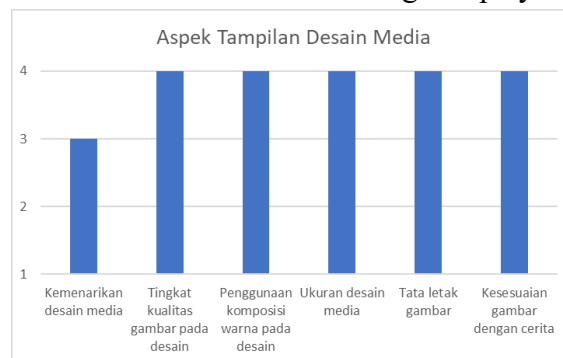


**Figure 6. Graphic Aspect Display Design.**

Based on the Likert scale, in the indicator of attractiveness of media design, a score of 3 is included in the good category. The image quality level indicator obtained a score of 4 which falls into the category of excellent. The indicator of the use of color composition in the design obtained a score of 4 which is included in the category of excellent. The media design size indicator obtained a score of 4 which falls into the category of excellent. The image layout indicator obtained a score of 4 which falls into the category of excellent. The indicator of the suitability of the image with the story obtained a score of 4 which is included in the category of excellent. The total number of scores in the aspect of media design display is, 3 + 4 + 4 + 4 + 4 = 23.

Next, the aspects of writing include, the type of font used, the attractiveness of the type of font, the color of the font used, the level of understanding of the delivery of the text content, and the level of clarity of the text when read. The table is as follows.
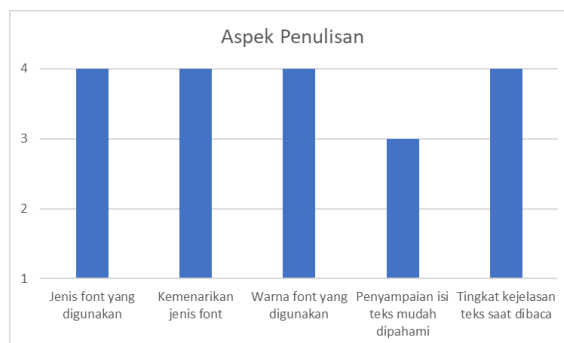


**Figure 7. Writing Aspect Graph.**

In the indicator of the type of font used, a score of 4 was obtained which was included in the category of excellent. The indicator of the attractiveness of the font type obtained a score of 4 which falls into the category of excellent. The font color indicator used obtained a score of 4 which falls into the category of excellent. The indicator of the level of text content delivery obtained a score of 3 which is included in the good category. The indicator of the level of clarity of the text when read obtained a score of 4 in the category of excellent. The total score in the writing aspect is, 4+4+4+3+4= 15.
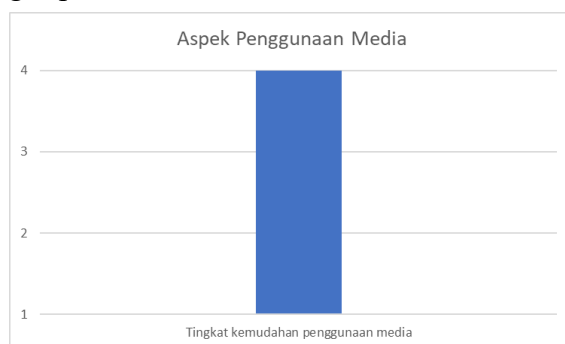


**Figure 8. Media Use Aspect Graph**

In terms of media use, there is only one indicator, namely the level of ease of use of media which obtained a score of 4 which is included in the very good category. The total number of scores of each aspect if added up becomes, 23+15+4= 42. Based on this number, the results of the design validation test using the formula below can be known.

$$Result = \frac{\text{Total score obtained}}{\text{Total score overall}} \times 100\%$$

$$Result = \frac{42}{48} \times 100\%$$

$$Result = 87.5\ \%$$

Based on the results of the material validation test obtained, it can be known that the feasibility of media based on the media feasibility test category (Nisa Amalia í & Fathurrahman, 2023) can be determined as follows.

**Table 2. Media Eligibility Categories**

| Percentage | Criteria |
|---|---|
| 76%-100% | Highly Proper |
| 51%-75% | Proper |
| 26%-50% | Quite Decent |
| 0%-25% | Less Worthy |

Based on the above results, it can be seen that the results of the material validation test obtained a percentage of 91.67% which is included in the criteria is very feasible. Meanwhile, from the results of the media validation test, a score of 87.5% was obtained which was included in the very feasible criteria. Therefore, it can be said that the domino card media of wayang stories is very suitable for use as a learning medium in learning outcomes to understand the content of the text of the Ramayana wayang story (Resi Jatayu) grade VIII junior high school.

**CONCLUSION**

Based on the needs analysis, it was found that students struggle to understand the content of the *Ramayana* story (*Resi Jatayu*) due to the variety of languages used, and the lack of engaging learning media leads to monotonous learning experiences. To address this, the research developed a domino card learning media for *puppet* stories, tailored to the needs of both teachers and students, using the Research and Development (R&D) method and designed with Adobe Illustrator. The resulting product consists of 40 cards featuring images, story excerpts, practice questions, and a manual for use. The material validation test showed a very feasible rating at 91.67%, while the media validation test achieved 87.5%, also categorized as very feasible. For future research, it is suggested to explore the effectiveness of domino card learning media in other subjects or with different stories to further enhance student engagement and comprehension.

**REFERENCES**

Andriani et al., D. (2020). The role of interactive games in enhancing students' comprehension of cultural stories. *Journal of Educational Media and Technology*, *16*(4), 204–217.

Audia Yatri I. Aslam Mawani S. & Zulherman., C. (2021). Development of Smart Card Media for Elementary Students. *Journal of Physics: Conference Series*, *1783*(1), 012114. https://doi.org/https://doi.org/10.1088/1742-6596/1783/1/012114

Aulya Zulyusri Z. & Rahmawati R., R. (2021). Media Pembelajaran Berbentuk Kartu dengan Metode Permainan UNO pada Materi Protista. *Jurnal Penelitian Dan Pengembangan Pendidikan*, *5*(3), 421. https://doi.org/https://doi.org/10.23887/jppp.v5i3.34743

Bulan & Idhar I., A. (2021). Developing Noun Words Domino Card (NWDC) Learning Media to Improve English Vocabulary Mastery of Junior High School Students. *VELES Voices*

of English Language Education Society, *5*(2), 192–205. https://doi.org/https://doi.org/10.29408/veles.v5i2.4028

Gunawan & Suryani W., T. (2020). Developing engaging and educational game-based learning media for language teaching. *Asian Journal of Education and Pedagogy*, *9*(3), 185–198.

Hassan et al., A. (2020). The use of multimedia in teaching mythology to enhance student engagement. *Journal of Educational Research*, *8*(2), 77–88.

Hidayah & Ikhlas M., T. (2020). Designing and developing game-based learning media to improve cultural literacy. *Journal of Instructional Technology and Media*, *20*(1), 45–56.

Hidayat & Sari I., R. (2021). Game-based learning as a tool for enhancing comprehension in elementary school students. *Educational Technology & Society*, *24*(1), 109–119.

HN Madlazim M. & Supardi Z. A. I., M. F. (2023). Application of Learning Technology in Domino Card Games on a large scale and individually to the responses of senior high school students. *IJORER: International Journal of Recent Educational Research*, *4*(1), 79–90. https://doi.org/https://doi.org/10.46245/ijorer.v4i1.273

Ibda, H. (2019). Media Pembelajaran Berbasis Wayang (Konsep Dan Aplikasi) (H. Nashihin, Ed.; 2nd ed.). *CV. Pilar Nusantara*. https://doi.org/https://play.google.com/store/books/details?id=NQqjDwAAQBAJ

Larasati, R. A. (2019). Pengembangan media pembelajaran domino aksara jawa (Dorawa) untuk meningkatkan daya ingat siswa kelas IV SD. *Http://Etheses.Uin-Malang.Ac.Id/16650/%0Ahttp://Etheses.Uin-Malang.Ac.Id/16650/1/15140144.Pdf*.

Lestari et al., M. (2018). The impact of interactive game media on storytelling comprehension: A case study of Indonesian students. *Journal of Modern Education Review*, *18*(2), 33–45.

Mahmud Isro'ani F. Pebriana P. H. Karim A. R. & Noto M. S., S. (2023). Media Pembelajaran (A. Rahmawati, Ed.; 1st ed.). *Penerbit Lovrinz Publishing*. https://doi.org/https://play.google.com/store/books/details?id=-O7LEAAAQBAJ

Maisarah R. Agustina P. Narayanti P. S. Mayasari Suyuti Saptadi N. T. S. Wibowo Moh. A. Tandirerung V. A. Imbar M. Ananingsih V. K. & Salem E. T. V., M. (2023). Media Pembelajaran (A. C. Purnomo, Ed.). *PT. Sada Kurnia Pustaka*.

Mokhtari & Hasti T., S. (2019). The development of digital storytelling using game-based media: Enhancing student interest in ancient stories. *Education and Information Technologies*, *24*(6), 2187–2201.

Nisa Amalia í & Fathurrahman M., S. (2023). Pengembangan Media Pembelajaran Flipbook Untuk Meningkatkan Hasil Belajar Siswa Kelas V Pelajaran Ips. *In JLJ*, *12*(1). https://doi.org/https://journal.unnes.ac.id/sju/index.php/jlj

Nugroho, A. (2020). Exploring the benefits of game-based learning for improving language skills. *Journal of Language and Learning*, *14*(3), 250–262.

Patria Saroinsong Anggraeni N. & Mulia Putri I., W. (2021). How Does Domino Card Help Children to Insight Numbering. *South East Asia Journal of Early Childhood Core Educatiojn and Parenting*, *2*(1).

Priyanti & Rosyida F., D. (2021). Designing effective educational games for teaching traditional stories. *International Journal of Game-Based Learning*, *12*(1), 79–93.

Rahmat & Irawati S., M. (2020). Teacher perspectives on the integration of gamification in education. *International Journal of Educational Development*, *27*(4), 243–255.

Rini & Supardi M., S. (2019). Cognitive challenges in understanding traditional stories in contemporary classrooms. *Journal of Indonesian Education Studies*, *8*(2), 119–130.

Rohani. (2020). Media Pembelajaran. *Repository.Uinsu*, 234. https://doi.org/https://books.google.com/books?hl=en&lr=&id=npLzDwAAQBAJ&oi=fnd&pg=PA1&dq=media+pembelajaran&ots=Nr8w9uLXRR&sig=dO9nzuMdeU76Gwa7wE2-xLcBB7I

Sugiyono. (2021). Metode Penelitian Pendidikan (A. Nuryanto, Ed.; 3rd ed.). *CV. Alfabeta*.

Sugiyono., Prof. Dr. (2022). Metode Penelitian & Pengembangan Research and Development (S. Y. Suryandari, Ed.; 5th ed.). *Alfabeta*.

Wasiyah Fitriana Y. & Bakara T., M. (2023). Efektivitas Penggunaan Media Pembelajaran Terhadap Aktivitas MengajarGuru di Kelas. *Edukasia*, *4*, 205–212. https://doi.org/http://jurnaledukasia.org

Widodo et al., A. (2021). Game-based media as an alternative for engaging students in understanding classical literature. *Journal of Interactive Media in Education*, *13*(2), 64–77.

Yanti et al., M. (2019). Implementing digital tools in teaching mythology for better student engagement. *Educational Innovations Journal*, *5*(1), 15–27.

Yushofah & Subrata H., N. (2021). Pengembangan Media Permainan DAWA (Domino Aksara Jawa) Untuk Pembelajaran Keterampilan Membaca Aksara Jawa Siswa Kelas III SD. *UNESA (Universitas Negeri Surabaya*, *9*, 2393–2403. https://doi.org/1–10