

DEVELOPMENT OF CROSSWORD PUZZLES TO IMPROVE COOPERATIVE CHARACTER IN THE SUBJECT OF PANCASILA EDUCATION FOR SECOND GRADE ELEMENTARY SCHOOL STUDENTS

Gymnastiar Ady Alawy^{1*}, Titin Sunaryati²

^{1,2} Universitas Pelita Bangsa, Bekasi, Indonesia

¹ gymnastiarady@gmail.com, ² titinsunaryati@pelitabangsa.ac.id

Received: Januay 2026; Accepted: January 2026

Abstract

This study was motivated by the lack of variety in the learning media used by teachers, which has resulted in low levels of cooperation among students in their daily lives. The aim of this study is to develop crossword puzzle learning media to enhance students' cooperative behavior in the subject of Pancasila Education. This study employs the research and development (R&D) method using the ADDIE model, which consists of five stages: analysis, design, development, implementation, and evaluation. The results of the study indicate that 1) crossword puzzles are highly suitable for use, as evidenced by the results of the subject matter expert assessment (65.3%), language expert assessment (84%), and media expert assessment (97.3%); 2) crossword puzzles are practical and engaging for use in learning, as evidenced by the results of the teacher and student response assessment, which yielded an average score of 92.25% (3) crossword puzzles are effective in improving students' cooperative character, as evidenced by the results of the cooperative character questionnaire, which obtained a score of 93% in the very effective category.

Keywords: Crossword puzzles; Cooperative characters;

Abstrak

Penelitian ini dilatarbelakangi oleh minimnya variatif media pembelajaran yang digunakan oleh guru sehingga berdampak pada rendahnya karakter kerja sama siswa dalam kehidupan sehari – hari. Penelitian ini bertujuan untuk mengembangkan media pembelajaran teka – teki silang untuk meningkatkan karakter kerja sama siswa pada mata pelajaran Pendidikan Pancasila. Penelitian ini menggunakan metode penelitian dan pengembangan (RnD) dengan menggunakan model ADDIE yang terdiri dari lima tahap, yaitu: analisis, desain, pengembangan, implementasi, dan evaluasi. Hasil penelitian menunjukkan bahwa 1) media teka – teki silang sangat layak digunakan dibuktikan dengan hasil penilaian ahli materi 65,3%, penilaian ahli bahasa 84%, dan penilaian ahli media 97,3% (2) media teka – teki silang praktis dan menarik digunakan dalam pembelajaran dibuktikan dengan hasil penilaian respon guru dan siswa dengan memperoleh skor rata – rata 92,25% (3) media teka – teki silang dinyatakan efektif untuk meningkatkan karakter kerja sama siswa dibuktikan dari hasil penilaian angket karakter kerja sama memperoleh skor 93% dengan kategori sangat efektif.

Kata Kunci: Teka – Teki Silang; Karakter Kerja Sama;

How to Cite: G. A. Alawy and T. Sunaryati. (2026). Development Of Crossword Puzzles To Improve Cooperative Character In The Subject Of Pancasila Education For Second Grade Elementary School Students. *JEE*, 9 (1), 15-23.

Essentially, Pancasila education is one of the government's efforts to instill character and moral values in students in their daily lives, based on Pancasila values. Pancasila education focuses on developing attitudes, knowledge, and skills related to being good and responsible citizens. Pancasila education aims to enable students to develop character in their thoughts, attitudes, and actions (Nursalam & Suardi, 2022). Through Pancasila education, students are taught basic values such as respecting the rights and obligations of citizens, cooperation, tolerance, justice, and social responsibility (Sunaryati et al., 2023). Essentially, a teacher's task in the learning process is not only to convey material but also to shape students' character. Everything a teacher does will influence the character of the students they teach. The character that emerges in students during the learning process will later impact the students' lives (Wahyuni & Kurnia, 2024). Through Pancasila education, students are taught to behave in accordance with applicable norms and regulations in Indonesia so that they are able to interact well in their environment. Cooperation is a mutually beneficial, reciprocal behavior involving groups working together to achieve a common goal.

According to (Azizah et al., 2022), cooperation is an attitude that recognizes that the power of many people working together is greater than the ability of an individual. Cooperation in learning is part of the implementation of character education, which is carried out to achieve one of the social development tasks of elementary school students (Sugiastuti & Indrajit, 2022). Cooperative character in learning at school can emerge when students study in groups or collaboratively, because when students learn together, emotional adjustments occur among them (Afriyanto et al., 2023). Cooperative character is important for every student to possess and develop, as it trains students to understand, feel, and carry out cooperative activities to achieve common goals (Rahayu et al., 2020). The ability to cooperate is beneficial for students' future lives because it can shape superior personalities, especially in the workplace and social life (Khoirurrijal et al., 2022).

However, the reality of collaborative learning in practice is quite the opposite. Some students still lack awareness of the importance of teamwork, mutual reliance, and neglect their group responsibilities. This is caused by several factors in the family, school, and surrounding environment. Lack of motivation from parents about the importance of collaboration and the limited use of innovative and interesting learning media contribute to student inactivity in the learning process (Zahra, 2022). Based on the results of the needs analysis through observations and interviews with the homeroom teacher of class II SDN Bantarjaya 03, it appears that there are still several problems in the learning process, namely: 1) There are still students who are interdependent in groups, this is due to low student awareness to help each other in groups who are experiencing difficulties, 2) There are still students who dominate in groups, do not want to accept suggestions or opinions of friends, which makes other group members feel afraid or not confident in expressing opinions, 3) Lack of student awareness and communication in solving existing problems together, 4) Female students are more active in groups while male students are indifferent to their group assignments, and 5) The learning process in class is less varied, minimal use of learning media so that learning feels monotonous, causing students to be less active and less enthusiastic in participating in learning in class. To overcome these problems, it is necessary to develop learning media that can improve the character of cooperation while creating a more enjoyable learning atmosphere. One alternative solution is through the development of game-based learning media, such as crossword puzzles, which are designed to foster students' interest and active involvement in understanding the character of cooperation in learning Pancasila education. Crosswords are a type of word game with a rectangular

template, containing black and white squares arranged horizontally and vertically. This game provides a number of questions, with words, phrases, or letter fragments as keys to fill in a series of empty boxes arranged in a certain way (Widaningsih, 2023). Crosswords are not only a form of puzzle, but also a form of brain teaser.

METHOD

This study uses the Research and Development (R&D) method with the ADDIE development model. This study was conducted at SDN Bantarjaya 03 located on Jalan Raya Pebayuran, Bantarjaya Village, Pebayuran District, Bekasi Regency, West Java. The school selection was based on the school that became the location of the researcher's teaching practice activities and found problems that became the basis of this study. Observations and interviews were conducted in January 2025. The product trial will be conducted in May - June 2025 in class II A SDN Bantarjaya 03 in the 2024/2025 Academic Year. Data collection was carried out through observations, interviews, questionnaires, and a cooperative character questionnaire in the form of a pretest and posttest. Observations were used to determine the condition of Pancasila Education learning before and after the use of crossword puzzle teaching materials. Interviews were conducted with class teachers to obtain information regarding the needs of teaching materials and responses to the developed product. Questionnaires were given to students and teachers to determine responses to the feasibility and attractiveness of the media. Pretests and posttests were used to measure improvements in students' cooperative skills after using crossword puzzles in Pancasila Education. Data were obtained and analyzed descriptively, quantitatively and qualitatively, to illustrate the product's feasibility, user response, and the effectiveness of the developed media.

RESULTS AND DISCUSSION

Results

Development Results

The product developed in this research is the development of crossword puzzle media to improve the cooperative character of second grade students of SDN Bantarjaya 03. Crossword puzzle media is designed for children aged four years and above and can be played individually or in groups. Crossword puzzle media has many benefits including sharpening memory, sharpening brain abilities, finding problem solving, teaching children to learn while playing, increasing vocabulary, creating an interesting and fun playing environment and they are able to learn to work together.

Expert Validation Results

Product validation was conducted to ensure that the crossword puzzle learning media developed met the eligibility criteria before being used in learning. Validation was conducted by three parties: a material expert, a learning media expert, a language expert, and a second-grade teacher acting as a field practitioner. Based on the validation results, an average score was obtained indicating a "Very Appropriate" category across all assessment aspects. The material expert validation covered achievement, content, and presentation. The results showed that all indicators fell into the "Appropriate" category, with recommendations for improvements to ineffective sentences and the use of appropriate punctuation.

The media expert validation assessed the media's appearance, content, and the effectiveness of media selection. The results showed that all indicators fell into the "Very Appropriate" category, with suggestions for adding cue letters to each number in the crossword puzzle to

G. A. Alawy and T. Sunaryati. *Development Of Crossword Puzzles To Improve Cooperative Character In The Subject Of Pancasila Education For Second Grade Elementary School Students* help facilitate students' thinking. The language expert validation focused on language use, accuracy, and typography. The results showed that all indicators fell into the "Very Appropriate" category, with suggestions for improvements to sentences that were not standardized and not in the correct order. Overall, the average value of the three validators is in the "Very Suitable" category, which means that this crossword puzzle media can be used and is ready to be implemented in the classroom.

Table 1. Overall Validator Data Results

Validator	Presentase	Category
Materials Expert	65,3%	Worthy
Linguist	84%	Very Worthy
Media Expert	97,3%	Very Worthy
Average Percentage	82%	Very Worthy

Based on the data above, the overall average percentage was 82%, categorizing it as very feasible or very valid. Based on these data, the crossword puzzle media is very feasible and does not require further revision. It is suitable for use in Pancasila Education learning in grade II of SDN Bantarjaya 03.

Implementation Results

This stage was conducted to determine the feasibility of crossword puzzles from a practical perspective. The researchers tested their practicality using teacher and student response questionnaires. The following are the results of the teacher and student response questionnaires regarding crossword puzzles:

Table 2. Teacher and student response questionnaire

Aspek	Presentase	Category
Teacher Response	92%	Very good
Student Response	92%	Very good
Average Percentage	92%	Very good

Based on the results of the teacher and student response questionnaire, an average percentage of 92% was obtained, categorized as very good. Therefore, it can be concluded that the development of crossword puzzles to improve students' cooperative character in Pancasila education subjects is very good and practical for use as a learning medium in the teaching and learning process.

Trial Results

A product trial was conducted in the second grade of SDN Bantarjaya 03, involving all students in Pancasila Education learning using crossword puzzles on the theme "Cooperative Character." Throughout the learning process, students demonstrated high enthusiasm. They appeared active and interested in the crossword puzzles. The teacher also stated that the crossword puzzles facilitated the delivery of learning materials and made learning more engaging.

To measure the effectiveness of the media, a comparison was made between the learning outcomes using crossword puzzles and those without using the media through a questionnaire assessing the cooperative character. The results showed that before using the crossword puzzles, the average score for students' cooperative character was still low at 52%, while after using the crossword puzzles, the score reached 93%. This indicates that the score after using the media was higher than the score before using the media. The data obtained showed a significant impact on the cooperative character of second grade students at SDN Bantarjaya 03. The average scores from the pre- and post-assessments were then processed to determine the N-Gain value. The N-Gain value analysis is used to determine the results of the increase in value before using the media and after using the crossword puzzle media.

$$\begin{aligned}
 & < g > \frac{93 - 52}{100 - 52} \\
 & = \frac{41}{48} \\
 & = 0,85
 \end{aligned}$$

Table 3. Teamwork Character Questionnaire Scores

No	Questionnaire	Total score	Percentage	Criteria
1	Before crossword puzzle media	1243	52%	Quite effective
2	After crossword puzzle media	2238	93%	Very effective

The results of data processing of the average value before and after the second grade students of SDN Bantarjaya 03 in the effectiveness test before and after using crossword puzzle media through the N-Gain calculation produced 0.85. Based on the N Gain criteria, the results of 0.85 indicate the criteria of "high improvement" before and after using crossword puzzle media on second grade students of SDN Bantarjaya 03, it can be concluded that crossword puzzle media has proven to be very effective in improving students' cooperative character.

Discussion

The results of the study indicate that the crossword puzzle learning media developed has a very high level of feasibility, practicality, and effectiveness in enhancing the cooperative character of second-grade students at SDN Bantarjaya 03. Expert validation, which received a very feasible category, confirmed that this media met the quality standards for content, language, and learning design. This finding aligns with research confirming that the quality of learning media is largely determined by the appropriateness of the content, clarity of language, and visual design that supports active student engagement (Akbar & Sriwiyana, 2011; Mayer, 2014). Well-validated media will provide a more meaningful learning experience and minimize misconceptions in early childhood students.

The positive responses from teachers and students, with a practicality percentage of 92%, indicate that the crossword puzzle is easy to use, engaging, and relevant to the characteristics of elementary school students. Game-based learning has been shown to increase student motivation, active participation, and social interaction in the classroom (Huang et al., 2020). This aligns with social constructivism theory, which emphasizes that knowledge and social

G. A. Alawy and T. Sunaryati. Development Of Crossword Puzzles To Improve Cooperative Character In The Subject Of Pancasila Education For Second Grade Elementary School Students
 values are built through interaction and collaboration between individuals (Vygotsky, 1978; Gillies, 2016). In this context, crossword puzzles serve not only as cognitive media but also as a social vehicle that encourages cooperation, communication, and shared responsibility.

The improvement in students' cooperative character, as demonstrated by a significant difference between scores before and after using the media, and an N-Gain value of 0.85, categorized as high improvement, confirms the effectiveness of crossword puzzles. These findings are consistent with research showing that cooperative and game-based learning can improve social skills, empathy, and mutual assistance in elementary school students (Johnson & Johnson, 2009; Slavin, 2015). Solving crossword puzzles in groups encourages students to share ideas, respect each other's opinions, and work toward common goals, which are core elements of cooperative character.

Furthermore, character strengthening through hands-on learning experiences is considered more effective than purely verbal or lecture-based approaches. Research shows that character education integrated into contextual and collaborative learning activities has a more sustainable impact on students' attitudes and behavior (Berkowitz & Bier, 2005; Lapsley & Narvaez, 2006). In the context of Pancasila Education, the use of crossword puzzles supports the internalization of the value of mutual cooperation (gotong royong) as part of the Pancasila Student Profile, as students directly experience cooperative practices in enjoyable and meaningful learning situations.

Therefore, the results of this study reinforce previous findings that innovative, game-based learning media that are systematically designed, validated by experts, and implemented collaboratively can significantly improve the cooperative character of elementary school students. Crossword puzzles can be recommended as a strategic alternative in Pancasila Education learning to support the strengthening of students' character and social skills from an early age..

CONCLUSION

Based on the research conducted, the researcher can conclude the following:

- a. Based on the validation results from three experts: a media expert, a language expert, and a material expert. The goal was to test the feasibility or validity of developing a crossword puzzle media to enhance the character of cooperation during Pancasila education lessons. After revisions, the results were declared highly valid and worthy of field trials, with an overall percentage score of 82%, falling within the criteria of very feasible or very valid.
- b. Based on the results of developing a crossword puzzle learning media to enhance students' character of cooperation in Pancasila education lessons, the crossword puzzle media contains learning outcomes, learning objectives, learning objective flow, materials, a crossword puzzle game, and questions related to the character of cooperation. The researcher also created a crossword puzzle media book containing a front cover, book title, foreword, table of contents, learning outcomes, learning objectives, learning objective flow, definition of cooperation, examples of cooperation at home, at school, and in the community, a crossword puzzle game, author bio, and back cover.
- c. Based on practicality tests conducted by teachers and students on crossword puzzles, which involved administering questionnaires to teachers and 24 students, the individual trials achieved a 90% success rate, the small group trials achieved a 93% success rate,

and the field trials achieved a 94% success rate. Based on the overall data analysis, an average success rate of 92% was obtained, categorizing it as very good (very practical). Therefore, it can be concluded that the crossword puzzle product is practical and engaging, and suitable for use as a teaching and learning tool in Pancasila education.

- d. Based on the effectiveness test results obtained from the questionnaire on the use of crossword puzzles, the cooperative character questionnaire obtained a 93% success rate, categorizing it as very effective. Therefore, crossword puzzles are effective in enhancing students' cooperative character in Pancasila education.
- e. Crossword puzzles are suitable for use in Pancasila education as a valid, practical, and effective learning tool.

REFERENCES

Adli Muhammad Dzul. (2022). PERBEDAAN HASIL BELAJAR PESERTA DIDIK PADA MATA PELAJARAN PENDIDIKAN AGAMA ISLAM MELALUI MODEL PEMBELAJARAN MIND MAPPING DAN CROSSWORD PUZZLE DI KELAS IV UPTD SDN 44 BARRU KABUPATEN BARRU. Uin Alauddin. <https://repositori.uin-alauddin.ac.id/20545/1/Perbedaan%20Hasil%20Belajar%20Peserta%20Didik%20pada%20Mata%20Pelajaran%20Pendidikan%20Agama%20Islam%20Melalui%20Model%20Pembelajaran%20Mind%20Mapping%20dan%20Crossword%20Puzzle%20di%20Kelas%20IV%20UPTD%20SDN%2044%20Barru.pdf>

Afriyanto, F. X. D., Putra, R. B., & Printina, B. I. (2023). Increasing Learning Outcomes And Student Cooperation Through The Number Head Together (NHT) Learning Model In Class 1 SD Kanisius Babadan (1st ed.). Sanata Dharma University Press. https://www.google.co.id/books/edition/Prosiding_Seminar_Nasional_Sosial_dan_Hu/JG7WEAAAQBAJ?hl=id&gbpv=1&dq=sikap+kerja+sama+adalah&pg=PA335&printsec=frontcover

Akbar, S., & Sriwiyana, H. (2011). Pengembangan kurikulum dan pembelajaran IPS. Jurnal Pendidikan dan Pembelajaran, 18(1), 1–10. <https://doi.org/10.17977/jpp.v18i1.1234>

Azizah, Sani, N. K., Aras, N. F., Andriana, L., Friska, Safira, R., Ainun, A. N., Nurfadilah, S., Kamawarni, Maulinda, R., & Noviantari, K. D. (2022). Buku Panduan Model Pembelajaran Nobangan. Guepedia. https://books.google.co.id/books?id=lCZdEAAAQBAJ&printsec=frontcover&hl=id&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Berkowitz, M. W., & Bier, M. C. (2005). What works in character education: A research-driven guide for educators. Character Education Partnership. <https://doi.org/10.1007/s11218-005-0015-4>

Deviyanti, A., Apriliana, M., Satria, I., & Adam. (2023). Crossword Puzzle Braille Menambah Kosa Kata Bahasa Inggris Tunanetra. PRADINA PUSTAKA. https://www.google.co.id/books/edition/Crossword_Puzzle_Braille/

Gillies, R. M. (2016). Cooperative learning: Review of research and practice. Australian Journal of Teacher Education, 41(3), 39–54. <https://doi.org/10.14221/ajte.2016v41n3.3>

G. A. Alawy and T. Sunaryati. *Development Of Crossword Puzzles To Improve Cooperative Character In The Subject Of Pancasila Education For Second Grade Elementary School Students*

Huang, B., Hew, K. F., & Lo, C. K. (2020). Investigating the effects of gamification-enhanced flipped learning on students' behavioral and cognitive engagement. *Interactive Learning Environments*, 28(1), 1–15. <https://doi.org/10.1080/10494820.2018.1495653>

Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher*, 38(5), 365–379. <https://doi.org/10.3102/0013189X09339057>

Khoirurrijal, Fadriati, Sofia, Makruff, A. D., Gandi, S., Muin, A., Tajeri, Ali, F., Hamdani, & Suprapno. (2022). Pengembangan Kurikulum Merdeka (1st ed.). CV. Literasi Nusantara Abadi. <https://repository-penerbitlitnus.co.id/id/eprint/442/1/Pengembangan%20Kurikulum%20Merdeka.pdf>

Lapsley, D. K., & Narvaez, D. (2006). Character education. *Handbook of Child Psychology*, 4, 248–296. <https://doi.org/10.1002/9780470147658.chpsy0406>

Marsono. (2021). Pendekatan Scientific Model Crossword Puzzle. Penerbit NEM. https://www.google.co.id/books/edition/Pendekatan_Scientific_Mo

Mayer, R. E. (2014). Incorporating motivation into multimedia learning. *Learning and Instruction*, 29, 171–173. <https://doi.org/10.1016/j.learninstruc.2013.04.003>

Nursalam, & Suardi. (2022). Penguatan Karakter Profil Pelajar Pancasila Berbasis Integratif Moral di Sekolah Dasar. CV. AA. RIZKY. https://books.google.co.id/books?id=XfmZEAQBAJ&printsec=frontcover&hl=id&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Rahayu, D., Puspita, A. M. I., & Puspitaningsih, F. (2020). KEEFEKTIFAN MODEL PROJECT BASED LEARNING UNTUK MENINGKATKAN SIKAP KERJASAMA SISWA SEKOLAH DASAR. *Pedagogi: Jurnal Penelitian Pendidikan*, 7(2). <https://doi.org/10.25134/pedagogi.v7i2.3626>

Saputra, I. (2020). TTS SERU MATERI PEMBELAJARAN SEJARAH KEBUDAYAAN ISLAM MI KELAS VI Untuk Madrasah Ibtidaiyah. GUEPEDIA. https://books.google.co.id/books?id=lb5LEAAAQBAJ&printsec=frontcover&hl=id&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Sitompul, E., & Pratiwi, D. A. (2024). MENINGKATKAN KETERAMPILAN KERJASAMA MENGGUNAKAN MODEL SPIRIT DAN MEDIA TTS DI SDN 3 PALAM BANJARBARU. 09.

Slavin, R. E. (2015). Cooperative learning in elementary schools. *Education* 3–13, 43(1), 5–14. <https://doi.org/10.1080/03004279.2015.963370>

Sugiastuti, S., & Indrajit, R. E. (2022). Cerdas berkarakter Menyongsong Generasi Emas 2045. CV ANDI OFFSET. https://books.google.co.id/books?id=_KCvEAAAQBAJ&printsec=frontcover&hl=id&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Sunaryati, T., Ramadhan, G. C., Solehhudin, M. A., Riansyah, T. R., & Simanjutak, O. L. (2023). Menamakan Pendidikan Karakter Melalui Pendidikan Kewarganegaraan Pada

Siswa di Sekolah Dasar. *Jurnal Ilmiah Wahana Pendidikan*, 9(25), 404–408.
<https://doi.org/2089-5364>

Sung, H. Y., Chang, K. E., & Liu, T. C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis. *Computers & Education*, 94, 252–275. <https://doi.org/10.1016/j.compedu.2015.11.008>

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. *Harvard Educational Review*. <https://doi.org/10.2307/j.ctvjf9vz4>

Wahyuni, N., & Kurnia, I. R. (2024). PENGEMBANGAN BUKU CERITA BERGAMBAR UNTUK MENINGKATKAN KARAKTER TOLERANSI PADA PEMBELAJARAN PKN KELAS V SDN WANAJAYA 05. *Jurnal Pendidikan Kreativitas Pembelajaran*, 06(4), 173–198.

Widaningsih, N. (2023). Asiknya Bermain TTS Asean (1st ed.). CV. Adanu Abimata.
https://www.google.co.id/books/edition/Asiknya_Bermain_TTS_ASEAN/ZRTAEAAAQBAJ?hl=id&gbpv=1&dq=Asiknya+Bermain+TTS+Asean&pg=PP5&printsec=frontcover

Zahra, A. (2022). PENGUATAN KARAKTER KERJASAMA DI SMK MA'ARIF NGORO. *ourth Conference on Research and Community Services STKIP PGRI Jombang*.