

Development of a Contextual Worksheet Based on the Characteristics of Systems of Linear Equations in Two Variables Material at SMP Negeri 2 Bumi Nabung

Antika Wijayanti¹, Selvi Loviana^{2*})

^{1,2}IAIN Metro

*)selviloviana1112@gmail.com

Abstract

Learning mathematics requires learning media that are interesting and contain contextual life history. This study aims to develop valid, practical, and contextual worksheets which contain illustrated stories (comic) with characters. This worksheet uses Systems of Linear Equations in Two Variables material. The type of research used in this study is Research and Development. The research procedure used is the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The tryout was conducted on a small-scale group involving fifteen class VIII D SMP Negeri 2 Bumi Nabung students. The results showed that the validation of material experts obtained a total average of 3.45 with the validation criterion of "Valid." The results of the media expert validation obtained a total average of 3.86 with the validation criterion of "Valid." The student response questionnaire analysis results obtained a total score percentage of 92% with the practicality criterion "Very Practical." The results of this study indicate that the worksheet developed has met the criteria and is practical, so the worksheet is suitable for use in learning.

Keywords: Development, Worksheet, Contextual, Comic

Introduction

Based on the Programme for International Student Assessment (PISA) 2022 results, released in December 2023, Indonesia ranked 65th out of 81 participating countries in mathematics. The average mathematics score of Indonesian students was 379, significantly below the OECD average of 472. Approximately 73% of Indonesian students performed below the minimum proficiency level (Level 2), indicating that most students could not solve fundamental mathematical problems in real-life contexts. The OECD noted that Indonesian students demonstrated very low proficiency in problem solving and contextual application of mathematics (OECD, 2023). So far, mathematics learning in schools has only focused on solving problems and remembering formulas quickly. Students must understand basic mathematical concepts when learning because mathematics is the basis for someone to be able to move on to mathematics with an even higher level of difficulty. Mathematics presents realistic problems that students can imagine, so they are easy to understand and not just memorize (Selvia, 2019). In learning mathematics, it is best to link the material taught with students' experiences or daily activities to gain a better understanding (Prasetya et al., 2018).

There are many learning approaches, but according to the previous explanation, the kind of learning approach suitable for learning mathematics is contextual. Contextual Learning is a concept that helps teachers relate lesson material to students' real-life experiences so that students can apply the knowledge they have acquired in everyday life (Afriani, 2018).

Teaching materials are anything that is arranged systematically in accordance with the applicable curriculum (Magdalena et al., 2020). Teaching materials have an important role in learning. Without teaching materials, a teacher will have difficulty implementing learning. Student worksheets are teaching materials that can support the learning process. Student worksheets are teaching materials that can support the learning process. Worksheet is a sheet that contains material, descriptions, work steps, and exercises to be carried out by students, which is a guide and support for the learning process (Aprilla, 2021),

Contextual worksheets based on pictorial stories (comic) is one way to handle the learning challenges that occur now. Picture stories are a medium that displays images as a reflection of daily life accompanied by explanations (Mawanto et al., 2020). Using pictures in worksheet can motivate students because students describe pictures as something fun, which can help their memory and understanding of the material.

Mathematics consists of a lot of material that must be studied, one of which is Systems of Linear Equations in One Variable. This substance a crucial part of the mathematics curriculum, is one of the materials that must be studied by class VIII SMP students in the 2013 curriculum. Systems of Linear Equations in Two Variable concept has a lot to do with students' daily lives, for example when they want to know the unit price of goods when shopping, whereas we only know the total price of all goods. that we buy. In Systems of Linear Equations in Two Variables, students will learn to create a Linear Equation in Two Variables, which is a mathematical equation that involves two variables and can be graphically represented as a straight line. They will also learn to create a mathematical model of the Linear Equations in Two Variables problem, create a mathematical model of the Systems of Linear Equations in Two Variables problem, and then find the solution to the model. Comic-based contextual worksheet is very suitable for use in Systems of Linear Equations in Two Variables learning. This is because implementing a contextual approach in worksheet can make it easier for students to understand the concepts in Systems of Linear Equations in Two Variables material.

Based on a direct interview conducted by researchers with the class VIII mathematics teacher at SMP Negeri 2 Bumi Nabung on Monday, August 16, 2021, it can be seen that mathematics learning on Systems of Linear Equations in Two Variable material during face-to-face learning experiences several obstacles include the learning media used are textbooks which contain few pictures and more writing, as well as the number of textbooks being inadequate for the number of students, teachers also never use teaching materials in the form of worksheet or non-printed teaching materials such as pdf, ppt, or learning videos due to inadequate school facilities.

Online learning in mathematics subjects at SMP Negeri 2 Bumi Nabung uses the WhatsApp Group application, Google Classroom, with teaching materials in the form of summaries of learning materials referring to textbooks in PowerPoint or PDF form and assignments using Google Form. Learning using interactive learning media such as Google Meet or Zoom is never done, and learning to use videos on YouTube is rare. This is because this application consumes more internet packages and requires a more robust internet network, while most students live in locations with inadequate internet power, family economic conditions also often become an obstacle for students in meeting their online learning needs, namely purchasing quotas internet. Therefore, taking into account the condition of students, only some students are in places with stable internet network strength, and not all students always have an internet package to access the application; online learning using interactive learning media has never been carried out.

The mathematics teachers the researchers interviewed also supported the development of contextual worksheet based on character graphics. These character graphics are visual representations of mathematical concepts using relatable characters and situations. This approach, apart from having illustrated stories that will attract students' interest, will also train students' reasoning in studying Systems of Linear Equations in Two Variable material. The aim of this research is to develop a contextual worksheet based on picture stories on Systems of Linear Equations in Two Variable material that is not only valid and practical but also enhances students' learning experience by making the material more engaging and relatable.

Method

The type of research carried out by researchers is Research and Development (R&D). The use of the R&D method is adapted to the aim of this research, namely to produce a

teaching material in the form of a contextual worksheet based on character graphics on Systems of Linear Equations in Two Variable material, which will then be tested for the level of validity and practicality of the product that the researcher has developed. The research implementation time is from 16 August 2021 to 8 April 2022 at SMP Negeri 2 Bumi Nabung, Central Lampung. Directly and online via WhatsApp for additional interviews with the class VIII Mathematics teacher at SMP Negeri 2 Bumi Nabung.

The research subjects for the trial process at the implementation stage in this study were 15 students in class VIII D of SMP Negeri 2 Bumi Nabung, consisting of students with low, medium, and high mathematical abilities based on previous math test scores and consultation with the math teacher. The development procedure used by researchers is the ADDIE development model. This model was developed by Dick and Carry (Walid, 2017). The ADDIE Instructional Model consists of 5 stages: analysis, design, development, implementation, and evaluation.

Data sources were obtained by researchers preparing interview instruments, material expert validation sheets, media expert validation sheets, and student response questionnaires. Interviews were conducted with teachers to gather information regarding mathematics learning activities on Systems of Linear Equations in Two Variable material in class VIII SMP Negeri 2 Bumi Nabung. Material expert and media expert validation sheets are given to each expert to assess the validity of the worksheet and ask for suggestions and input from the validators so that the results can be used as a reference when making revisions to the worksheet. The validation process involved two subject matter experts a lecturer in mathematics education and a secondary school mathematics teacher. Additionally, a media expert a mathematics education lecturer was consulted to evaluate the appropriateness of the instructional media. Student response questionnaires are given to students at the end of the trial process at the implementation stage. Student response questionnaires are used to measure the practicality of worksheet.

The data analysis techniques used in this research are qualitative and quantitative data analysis. Qualitative data was obtained from interviews, as well as suggestions and input from expert validators. The interviews obtained results regarding the teaching materials used and obstacles in the mathematics learning process in Systems of Linear Equations in Two Variable material material in class VIII D of SMP Negeri 2 Bumi Nabung. Suggestions and input from validators obtain corrections in the form of improvements that must be made to

the worksheet being developed. Quantitative data in the research was obtained from media expert validation results, material expert validation results, and student responses.

Results and Discussion

The first stage is the analysis stage. It was found that in the mathematics learning process on the topic of Systems of Linear Equations in Two Variables in Grade VIII at SMP Negeri 2 Bumi Nabung, the learning media used was the 2013 curriculum textbook, which contains few illustrations and is insufficient in quantity compared to the number of students. The limited number of textbooks and the lack of supporting images that could help students' reasoning make it difficult for them to understand the material, and cause them to become easily bored.

The second stage is the design stage. This stage is a continuation of the first stage, the analysis stage. The analysis results showed that using textbooks as learning media did not support mathematics learning optimally. Analysis results from teacher interviews indicated students needed a contextual worksheet based on character-themed comic strips. In addition to the illustrated stories that can attract students' interest, the contextual approach in the worksheet will also train students' reasoning skills. Based on this rationale, the researcher designed the worksheet by planning its content, selecting problems to be included, determining a colour palette for the worksheet theme, and creating and downloading the image components needed to complete the worksheet. The illustrations were created using CorelDRAW X7, beginning with initial sketches. The images were not entirely original ideas from the researcher; instead, the researcher drew inspiration and references from various images found online to guide the sketching process.

The researcher then determined the color theme that would be used in the worksheet, namely orange, created the image components in the Coreldraw X7 application, and downloaded the image components on the internet to complete the story questions on the worksheet. Next, the creation of research instruments in the form of material expert validation sheets, media expert validation sheets, and student response questionnaires adapted from assessment instruments in content analysis of worksheet documents by PPG FKIP UNS (2018) and from (Amelia & Muzakki, 2021) in primary education journals archipelago.

In the third stage, namely the development stage, researchers make a worksheet referring to the initial design created at the design stage. Then, an assessment is carried out

by an expert validator using an assessment instrument in the form of a validation sheet. It is a worksheet that uses the CorelDRAW X7 application based on the initial design that was created. After completing the worksheet in the CorelDRAW X7 application, the next step is to export the file to the .pdf extension. This is done to make the worksheet printing process more accessible. The worksheet is printed on A4 paper using colored ink.

The next step in the development stage is validation by an expert validator using an assessment instrument in the form of a validation sheet. Revisions are carried out based on suggestions and input from the expert validator. This expert validation process aims to measure the worksheet's validity level. At this stage, the validation process is carried out by two material expert validators and one media expert validator. The following are the results of the material expert validator's assessment of the worksheet in Table 1:

Table 1. Results of Validation by Material Experts

No	Aspect	Criteria	Validator		Average of Each Criteria	Average of Each Aspect
			I	II		
1.	Eligibility of content	K1	4	4	4	3,62
		K2	3	3	3	
		K3	4	3	3,5	
		K4	4	4	4	
2.	Linguistic component	K5	4	3	3,5	3,2
		K6	4	3	3,5	
		K7	3	3	3	
		K8	3	3	3	
		K9	3	3	3	
3.	Feasibility of student activities/observations	K10	4	4	4	3,5
		K11	4	3	3,5	
		K12	3	3	3	
4.	Feasibility of implementation and measurement	K13	4	3	3,5	3,5
		K14	4	3	3,5	
Total						13,82
Average Total Validation Criteria for Validity						3,45
Criteria for Validity						Valid


The results of the material expert validation, a collaborative effort, obtained an average total validation of 3.45, with the validation criteria being "Valid." This shows that the worksheet developed is suitable for use because it meets the rules for preparing worksheet, namely aspects of the appropriateness of the content, linguistic components, appropriateness of student activities/observations, as well as the appropriateness of implementation and measurement. Researchers also asked for assessments from media expert validators. The following are the results of the media expert validator's assessment of the worksheet in Table 2:



Table 2. Media Expert Validation Results

No	Aspects	Criteria	Validator	Average of Each Criteria	Average of Each Aspect
1.	Worksheet components	K1	4	4	4
2.	Feasibility of display	K2	4	4	3,75
		K3	3	3	
		K4	4	4	
		K5	4	4	
3.	Picture eligibility	K6	4	4	3,75
		K7	3	3	
		K8	4	4	
		K9	4	4	
4.	Use of language	K10	4	4	4
		K11	4	4	
5.	Feasibility of Presentation	K12	4	4	3,8
		K13	4	4	
		K14	3	3	
		K15	4	4	
		K16	4	4	
Total					19,3
Average Total Validation					3,86
Criteria for Validity					Valid

The results of media expert validation obtained an average total validation of 3.86, with the validation criteria being "Valid." This shows that the worksheet developed is suitable for use because it meets the rules for preparing worksheet, namely worksheet components, suitability of appearance, suitability of images, use of language, and suitability of presentation. The following is Table 3 of the improvements that have been made as a result of the validator's suggestions:

Table 3. Results of Improvements to Validator Suggestions

Before Revision	After Revision
<p>Mengingat Persamaan Linear Satu Variabel</p> <p>Kompetensi Dasar: 3.5 Menjelaskan sistem persamaan linear dua variabel dan penyelesaiannya yang dihubungkan dengan masalah kontekstual</p> <p>Indikator Penguasaan Kompetensi: 3.5.1 Membuat model dan menentukan solusi dari permasalahan persamaan linear satu variabel yang diberikan. 3.5.2 Menjelaskan konsep persamaan linear satu variabel dari penyelesaian soal yang telah dilakukan.</p> <p>Ayo Mengamati Perhatikan gambar berikut!</p>  <p>Tina pergi berbelanja di toko ATK untuk membeli beberapa perlengkapan sekolah. Di pojokan pojok, ia bertemu dengan Anton yang juga sedang berbelanja di toko ATK. Saking antusiasnya, Anton untuk memintanya harga barang dari barang yang Anton dan Tina beli.</p> <p>Ayo Mencari Tahu Berdasarkan percakapan Anton dan Tina di atas, tuliskan informasi apa saja yang kalian dapatkan.</p> <p>LPPM Matematika</p>	<p>STRUKTUR MATERI SISTEM PERSAMAAN DUA VARIABEL</p> <p>Kompetensi Inti</p> <ol style="list-style-type: none"> 1. Mengetahui dan menghayati ajaran agama yang diwariskan. 2. Mengetahui dan menghayati potensi bangsa, diri, bangsa, lingkungan, sosial, budaya, teknologi, dan kearifan lokal. 3. Mengetahui dan menghayati potensi diri, bangsa, lingkungan, sosial, budaya, teknologi, dan kearifan lokal. 4. Mengetahui, menghayati, dan mengamalkan nilai-nilai kebangsaan, keadilan, kejujuran, tanggung jawab, dan menghormati hak-hak orang lain. <p>Kompetensi Dasar</p> <ol style="list-style-type: none"> 3.5 Menjelaskan konsep sistem persamaan linear dua variabel yang dihubungkan dengan masalah kontekstual. 3.5.1 Menjelaskan masalah kontekstual yang berkaitan dengan sistem persamaan linear dua variabel. <p>Indikator Penguasaan Kompetensi</p> <ol style="list-style-type: none"> 3.5.1 Membuat model matematika dari permasalahan kontekstual berkaitan dengan persamaan linear satu variabel yang diberikan. 3.5.2 Menjelaskan masalah kontekstual yang berkaitan dengan persamaan linear satu variabel. 3.5.3 Menjelaskan konsep persamaan linear satu variabel dari penyelesaian soal yang telah dilakukan. 3.5.4 Membuat model matematika dari permasalahan kontekstual berkaitan dengan persamaan linear satu variabel yang diberikan. 3.5.5 Menjelaskan masalah kontekstual yang berkaitan dengan persamaan linear satu variabel yang diberikan. 3.5.6 Menjelaskan konsep persamaan linear satu variabel dari penyelesaian soal yang telah dilakukan. 3.5.7 Menjelaskan model matematika dari permasalahan kontekstual berkaitan dengan persamaan linear satu variabel yang diberikan. 3.5.8 Menjelaskan masalah kontekstual yang berkaitan dengan sistem persamaan linear dua variabel. 3.5.9 Menjelaskan konsep persamaan linear dua variabel dari penyelesaian soal yang telah dilakukan. 3.5.1 Menjelaskan permasalahan kontekstual dari permasalahan yang berkaitan dengan persamaan linear dua variabel. 3.5.2 Menjelaskan permasalahan kontekstual dari permasalahan yang berkaitan dengan persamaan linear dua variabel. 3.5.3 Menjelaskan permasalahan kontekstual dari permasalahan yang berkaitan dengan persamaan linear dua variabel. <p style="text-align: center;">viii</p>

<h3>Mengingat Persamaan Linear Satu Variabel</h3> <p>Kompetensi Dasar: 3.5 Menjelaskan sistem persamaan linear dua variabel dan penyelesaiannya yang dihubungkan dengan masalah kontekstual</p> <p>Indikator Pencapaian Kompetensi: 3.5.1 Membuat model dan menentukan solusi dari permasalahan persamaan linear satu variabel yang diberikan. 3.5.2 Menjelaskan konsep persamaan linear satu variabel dari penyelesaian soal yang telah dilakukan.</p> <p>Ayo Mengamati Perhatikan gambar berikut!</p>  <p>Tina pergi berbelanja di toko ATK untuk membeli beberapa perlengkapan sekolah. Di perjalanan pulang, ia bertemu dengan Anton yang juga sedang berbelanja di toko ATK. Sekelompok pembeli Anton untuk membeli harga satuan dari barang yang Anton dan Tina beli.</p> <p>Ayo Mencari Tahu Berdasarkan percakapan Anton dan Tina di atas, tuliskan informasi apa saja yang kalian dapatkan.</p> <p>LKPD Matematika 1</p>	<h3>Persamaan Linear Satu Variabel (PLSV)</h3> <p>Indikator Pencapaian Kompetensi: 3.5.1 Membuat model dan menentukan solusi dari permasalahan linear satu variabel dan PLSV. 3.5.2 Menjelaskan masalah kontekstual yang berkaitan dengan PLSV. 3.5.3 Menjelaskan konsep PLSV dari penyelesaian soal yang telah dilakukan.</p> <p>AKTIVITAS 1 Perhatikan gambar berikut!</p>  <p>Tina pergi berbelanja di toko ATK untuk membeli beberapa perlengkapan sekolah. Di perjalanan pulang, ia bertemu dengan Anton yang juga sedang berbelanja di toko ATK. Sekelompok pembeli Anton untuk membeli harga satuan dari barang yang Anton dan Tina beli.</p> <p>1. Ayo Mencari Tahu Berdasarkan percakapan Anton dan Tina di atas, tuliskan informasi apa saja yang kalian dapatkan.</p> <p>LKPD Matematika</p>
<p>Mari Mencoba Buatlah model matematika dalam bentuk persamaan dari informasi yang kalian dapatkan.</p> <p>Perhatikan bahwa: Dari percakapan Anton dan Tina, dapat kita ketahui bahwa:</p> <p>Harga 6 buah buku adalah ...</p> <p>Harga 4 buah pensil adalah ...</p> <p>Jika pensil dan buku tidak diganti dengan suatu variabel semesta a, b, c, d, atau lainnya, maka kalimat di atas dapat dituliskan menjadi:</p> <p>..... Persamaan 1) Persamaan 2)</p> <p>Ayo Mencari Tahu Berdasarkan model matematika yang telah kalian buat di atas, tulislah besaran harga satuan dari buku dan pensil yang dibeli oleh Anton dan Tina!</p> <p>Harga 1 buah buku adalah ...</p> <p>Harga 1 buah pensil adalah ...</p> <p>Catatan Variabel adalah suatu simbol yang mewakili suatu nilai tertentu.</p> <p>LKPD Matematika 2</p>	<p>2. Mari Bertanya Berdasarkan cerita Anton dan Tina, apakah hal yang kalian diteliti? Berilah label dengan variabel yang kalian gunakan untuk mendeskripsikan variabel yang ada dan buatlah persamaan yang menggambarkan secara matematis model permasalahan yang kalian dapatkan.</p> <p>3. Mari Mencoba Buatlah model matematika dalam bentuk persamaan dari informasi yang kalian dapatkan pada soal nomor 1.</p> <p>Perhatikan bahwa: Dari percakapan Anton dan Tina, dapat kita ketahui bahwa:</p> <p>Harga 6 buah buku adalah ...</p> <p>Harga 4 buah pensil adalah ...</p> <p>Jika pensil dan buku tidak diganti dengan suatu variabel semesta a, b, c, d, atau lainnya, maka kalimat di atas dapat dituliskan menjadi:</p> <p>Misalkan, Harga buku = a Maka Persamaan 1) adalah $6a = \dots$</p> <p>Misalkan, Harga pensil = b Maka Persamaan 2) adalah $4b = \dots$</p> <p>Catatan Variabel adalah suatu simbol yang mewakili suatu nilai tertentu.</p> <p>LKPD Matematika 2</p>
<h3>KATA PENGANTAR</h3> <p>Allahu Akbar,</p> <p>Puji syukur penulis ucapkan kepada Allah SWT, yang telah memberikan rahmat serta hidayah-Nya sehingga Lembar Kerja Peserta Didik (LKPD) Matematika Kontekstual Berbasis Cergas Berakarakter materi Sistem Persamaan Linear Dua Variabel (SPLDV) ini dapat penyusun selesaikan dengan baik. LKPD ini diperuntukkan bagi siswa SMP/MTs kelas VIII yang bertujuan untuk membantu siswa dalam memahami penerapan materi SPLDV dalam kehidupan sehari-hari yang disajikan dalam bentuk cerita bergambar.</p> <p>LKPD ini menyajikan materi SPLDV dari segi penerapannya. Isi LKPD ini tidak hanya memuat uraian materi SPLDV namun juga dilengkapi nilai-nilai pendidikan karakter. Penulis berharap semoga LKPD ini sesuai dengan kebutuhan peserta didik yang ada di sekolah sehingga dapat membantu dalam kegiatan pembelajaran.</p> <p>Akhirnya, penyusun mengucapkan terima kasih kepada semua pihak yang telah membantu dalam penyelesaian LKPD ini.</p> <p>Metro, Februari 2022</p> <p>Antika Wijayanti</p>	<h3>KATA PENGANTAR</h3> <p>Puji syukur penyusun ucapkan kepada Allah SWT, yang telah memberikan rahmat serta hidayah-Nya sehingga Lembar Kerja Peserta Didik (LKPD) Matematika Kontekstual Berbasis Cergas Berakarakter materi Sistem Persamaan Linear Dua Variabel (SPLDV) ini dapat penyusun selesaikan dengan baik. LKPD ini diperuntukkan bagi siswa SMP/MTs kelas VIII yang bertujuan untuk membantu siswa dalam memahami penerapan materi SPLDV dalam kehidupan sehari-hari yang disajikan dalam bentuk cerita bergambar.</p> <p>LKPD ini menyajikan materi SPLDV dari segi penerapannya. Isi LKPD ini tidak hanya memuat uraian materi SPLDV namun juga dilengkapi nilai-nilai pendidikan karakter. Penyusun berharap semoga LKPD ini sesuai dengan kebutuhan peserta didik yang ada di sekolah sehingga dapat membantu dalam kegiatan pembelajaran.</p> <p>Akhirnya, penyusun mengucapkan terima kasih kepada semua pihak yang telah membantu dalam penyelesaian LKPD ini.</p> <p>Metro, 2022</p> <p>Antika Wijayanti</p>

stage ends with students being given a student response questionnaire to fill in according to what they felt during learning using the worksheet developed.

The results were based on the results of small group trials, namely that fifteen students in class VIII of SMP Negeri 2 Bumi Nabung obtained a total score percentage of 92% with the practicality criterion "Very Practical." This shows that the worksheet has met the practicality criteria, namely presentation of material, appropriate appearance, and use of language.

The fifth stage is the evaluation stage, which is carried out at the end of each research stage. From the evaluation results at the analysis stage, researchers obtained suggestions for products to be developed, how to present the material in them, and information about the condition of the school and the students who were the research targets. The evaluation results at the design stage were that the researcher obtained the initial design of the worksheet, the components needed to prepare the worksheet, and the research instruments used to assess the validity and practicality of the worksheet. The evaluation results at the development stage were that the researcher prepared a refined worksheet with suggestions from expert validators and obtained the results of the worksheet validity assessment from the specialist validator. Furthermore, the evaluation results from the implementation stage were that the researcher assessed the practicality of the student response questionnaire.

Like other teaching materials, the digital-based contextual worksheet offers numerous benefits for mathematics learning. It makes learning mathematics more enjoyable and engaging with its contextual approach, as supported by the research of Amelia and Muzakki (2021). Their research on digitally illustrated story-based worksheet is a new learning innovation, making it more exciting and meaningful for students. Moreover, the worksheet developed in this research is shown to increase the active role of students in teaching and learning activities, further enhancing its value for mathematics education.

Based on this research, the character-based contextual worksheet developed offers several unique advantages. The way it is presented makes the learning process more exciting and meaningful, as it is clear with a contextual approach. Students can revisit the material presented by the worksheet in the form of printed media, allowing them to learn at their own pace. Moreover, this worksheet is not limited to mathematical concepts; it also includes brain teaser games for entertainment and additional information to increase students' knowledge.

Most importantly, this worksheet is practical for use in the learning process, making it a comprehensive and effective tool for mathematics education.

The analysis of the student response questionnaire at the small group trial stage revealed a total score percentage of 92% with the practicality criterion "Very Practical". This high score demonstrates the feasibility and practicality of using this worksheet in the learning process, making it a valuable and user-friendly tool for mathematics education.

Conclusions and Suggestions

Several researchers have carried out similar research. One is Mega Selvia (2019), who researched "Development of Student Worksheets with a Contextual Approach to Class IV Mathematics for Elementary/MI Students." Imam Nur Rahman (2020) also researched "Development of Worksheet Based on Contextual Learning to Improve Learning Outcomes". Apart from that, Wisnu Siwi Satiti, Khurrotul Fitriah, and M. Farid Nasrulloh (2021) also conducted research "Contextual Worksheet Based on Islamic Boarding Schools to Support Students' Understanding of Social Arithmetic Material." The three studies above produced worksheet, included in the valid and suitable category for use. The latest thing in this research is that the researcher developed a character-based contextual worksheet based on the System of Linear Equations in Two Variables, which is suitable for learning.

Based on the results of the research and development of contextual worksheet based on character graphics which has been described, it was concluded that this development research produced a product in the form of printed teaching materials, namely contextual worksheet based on cream with the character of System of Linear Equations in Two Variables. The results obtained from the development of character-based contextual worksheet were viewed from the aspects of validity and practicality. The results of data analysis resulting from material expert validation obtained an average total validation of 3.45, with the validation criteria being "Valid." Furthermore, the data analysis resulting from media expert validation obtained an average total validation of 3.86, with the validation criteria being "Valid." The results of data analysis from student response questionnaires obtained a total score percentage of 92%. So, it can be concluded that the character-based contextual worksheet the researchers developed achieved the practicality criteria of "Very Practical."

Developing worksheet requires using different mathematical materials or a different learning approach. The research only carried out small group trials; further research can be

carried out with trials involving larger samples. In future research, changes in students' character can also be measured after using the comic worksheet, which contains character education values.

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