Research Article

LISSI comics as thematic learning media for literacy in elementary school students

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Abstract: As a result of the Covid-19 pandemic causing several problems in the world of education. One of them is the reduced knowledge and skills of students, namely literacy habits, especially in reading-writing literacy and the lack of use of digital media in the current era. The purpose of this study was to prove the effectiveness of LISSI comics as thematic learning media for literacy in grade 3 elementary school students. The research was conducted using a quasi-experimental method with a one group pretest-posttest design. The research subjects used were grade 3 students at SD N 2 Ringin and SDN 1 Sendangmulyo, Rembang district. The results of the calculation of the Paired Sample T-test show that each data gets a sig. = 0.00, this shows that there are differences in students' literacy skills before and after using LISSI comics. And the N-gain results show an increase in students' abilities. Based on the final results obtained, LISSI comics were declared effective so that they were suitable for use as learning media as well as supporting literacy for third grade elementary school students.

Keywords: Learning media; LISSI Comics; literacy read-write

1. Introduction

The existence of the Covid-19 pandemic, the Ministry of Education and Culture (2020), in the Press Release, emphasized policies regarding the flexibility for schools to apply the curriculum according to learning needs during this period. Where education units can use the 2013 Curriculum in full or the Emergency Curriculum, namely the simplified 2013 Curriculum. By reducing basic competencies in each subject, the aim is to focus teachers and students on essential competencies, namely strengthening character and fundamental competencies as a continuation of learning at the next level. Based on the results of the Press Release of the Ministry of Education, Culture, Research and Technology (2022), that the Covid-19 pandemic has resulted in a significant reduction in academic knowledge and skills, namely literacy and numeracy. Then the Ministry of Education and Culture compiled a Prototype Curriculum which said that this curriculum was used as a learning recovery after the Covid-19 pandemic. The characteristic of this curriculum is the application of project-based learning.

The Covid-19 pandemic has had various impacts on learning, including the lack of adequate facilities for online learning, students become easily bored due to long holidays, adjustments to methods during learning at home have caused a decrease in students' absorption. The lack of habituation of reading and writing literacy is one of the factors in this happening. Some of the obstacles that cause a lack of reading and writing literacy habits are due to lack of student enthusiasm, short learning time, lack of facilities and infrastructure, less varied reading books, and not all students have gadgets for learning (Purwanto et al., 2020; Utami et al., 2021). Some of the short-term challenges that the

impact of COVID-19 has had on the education sector are the need to ensure that students are provided with the necessary resources and support to engage properly in learning, and the need for appropriate programs and policies to compensate for the learning losses of children and young people who are lacking socially lucky. Meanwhile, in the long term, the main challenge refers to the prolonged impact of the pandemic on the education sector due to the long loss of study time. It can also cause reading gaps. Even though the distance school format can improve students' reading comprehension and fluency skills, these activities have not run optimally, besides that students must develop basic literacy skills from an early age (Starling-Alves et al., 2023; Zancajo, 2020). One of the ways that needs to be done is to create an agenda that must rebuild the system so that it elevates children and reduces educational tensions to become the new norm. Teachers and students must be oriented towards the use of educational tools that can adapt to circumstances to enhance teaching and learning activities (García & Weiss, 2020; Pokhrel & Chhetri, 2021).

In the Education Sector OECD (International Organization for Economic Cooperation and Development) organizes PISA (Program for International Student Assessment) as encouragement from various countries to learn from each other about the education system so they can build a better and inclusive schooling system. PISA can be followed voluntarily by countries that wish to participate, including Indonesia. The results of the study obtained by PISA can describe the effectiveness of schools in preparing students for further studies, besides that data on educational development is obtained accurately. From the results of Indonesia's PISA achievements in 2018, Indonesia was ranked 74 out of 79 countries. The results of the assessment obtained from reading literacy obtained a score of 371, while scientific literacy received a score of 379, and mathematical/numeration literacy received a score of 396. From these results it can be seen that the reading literacy score is the lowest among the others, this problem certainly requires action continued (Yunianto, 2022). The amount and variety of reading materials used is an important point because many schools currently only have textbooks (Mutji & Suoth, 2021). In addition, the need for peer support to both strengthen reading skills by forming reading groups in order to help support students understand literature effectively (Torbenson, 2019).

The need for interesting reading materials is one of the efforts to restore students' interest in reading and writing. Thus the reading material used must also adjust to the times. Learning media that are used to increase literacy in the 21st century era have spread widely among the public, such as learning videos, reading fiction and non-fiction stories, modules and so on. However, there are still many of them who are less literate or do not use technology according to their functions. Technological development is now only used to fulfill needs, as an arena for social media but does not pay attention to aspects of the humanities, and anti-social behavior that is currently happening a lot (Faruqi, 2019). This is what led to the emergence of the idea of society 5.0, a revolution to promote a more just and sustainable society, namely the existence of a symbiotic/collaborative relationship between humans and machines/robots, where technological developments and social problems will be balanced in this era (Coelho et al., 2023).

Related to this, one of the interesting media for students to improve literacy is comic media. The use of digital comic media is able to increase the effectiveness of learning and students can be more enthusiastic in learning, because besides reading digital comics students can also see pictures of cartoon characters thereby increasing students' imagination and understanding. In addition, digital comic media is also appropriate when used for all subjects and various types of literacy, this can be proven by previous research. Several studies have proven the influence of comic media on students' scientific literacy abilities. An alternative to increasing vocabulary mastery is using comic books (Marlina et al., 2020; Riwanto & Wulandari, 2018; Sari, 2018). It is also believed that printed comics can strengthen literacy culture for elementary school students, so that they can be used as companion books after textbooks. Printed comics can help stimulate and foster students' interest in reading because the pictures, characters/figures, and storylines used are very interesting (Aulia et al., 2021; Lubis, 2019). Comic strip media can be used as language

teaching, some of the benefits of this media are to increase vocabulary, improve grammar, improve reading skills, improve writing skills, comic strips can be a good encouragement for writing. If students are careful in exploiting images, visuals, fonts they are more sensitive to reading textual contexts which enables their reading skills and use of reading strategies which will lead to increased independence (Cimermanová, 2015; Drolet, 2010; Wijaya et al., 2021).

From the description above, the problems that occurred after the Covid-19 pandemic resulted in a decrease in academic knowledge and skills, namely students' literacy skills, it is necessary to provide support to improve students' literacy activities in schools. In this case comics are often used as learning media in schools to improve students' reading skills. However, comics are needed not only to improve reading skills but for literacy. So the media used is LISSI comics or can be interpreted as fiction and information literacy comics, in which there are stories in everyday life that are packaged into fiction stories and also contain information. The sub-stories in this learning media are adapted to the sub-learning theme books used, which consist of 6 story titles supplemented with practice questions. This media is also packaged in two versions, namely in the form of printed and digital comics which will attract students' attention and make it easier for teachers to introduce material to students. Therefore, this study aims to develop LISSI comic media as a medium for learning thematic literacy in grade 3 elementary school students.

Given the importance of learning media as an intermediary for the delivery of learning materials as well as being used as material for students' literacy, researchers are interested in developing LISSI comic media to broaden knowledge in the field of education, as well as add variety to reading materials for literacy literacy in elementary schools. The purpose of this study was to prove the effectiveness of LISSI comics as thematic learning media for literacy in grade 3 elementary school students.

2. Materials and Methods

2.1 Research Design

his research was conducted in August 2022 at SDN 1 Sendangmulyo and SDN 2 Ringin, Rembang Regency, Central Java. This Research and Development (R&D) uses the ASSURE development model developed by Heinich et al (1999) and is an instructional model for planning lessons and technology that will refine them, and contains six steps which are described according to the acronym for the word ASSURE including: Analyze learners stages; State standards and objectives; Select strategies, technology, media, and materials; Utilize technology, media, and materials; Require learner participation; Evaluate & Revise.

2.1.1 Analyze learners

The first step taken to find out student problems is to identify them, with the aim that the teacher can recognize the characteristics of students who will take part in the learning process (Tsaniazulfa et al., 2022). At this stage learning is usually applied to a group of students who have certain characteristics. There are three characteristics that need to be considered including:

a) General characteristics, namely: occupation, ethics, culture, age, socio-economic factors, gender, and level of education

b) The specification of the initial ability, is the ability that has been owned by students before. To obtain this information, students can be given an entry test or entry behavior before carrying out learning as a reference for things that do not need to be conveyed to students.

c) Learning style, arises from the psychological and emotional comfort students feel when interacting with their learning environment. Such as audio, visual, or kinesthetic styles that must receive different attention in each use of media or learning methods (Syahril, 2018).

2.1.2 *State standards and objectives*

Learning objectives adjusted to improve students' literacy with learning habits using visual media and the average student who has not been able to properly study learning material using grade 3 material theme 1 sub-theme 2.

2.1.3 *Select strategies, technology, media, and materials*

Appropriateness of methods, media, and teaching materials is very important because it can affect the effectiveness, efficiency and attractiveness of students in learning. The suitability can be seen from the characteristics of students. Also interpreted as the stage of adjusting the strategy with the learning objectives to be achieved, however, not all of the methods used will answer the needs of students as a whole. Therefore, it must be considered in various ways in selecting media, methods and teaching materials. As in choosing learning media, it doesn't have to be expensive, but it should be considered from its advantages and disadvantages. There are three things that can be taken into consideration, namely choosing material that is already available and ready to use, changing/modifying existing material, or creating material with a new design.

With the existing problems, the use of the developed LISSI comic media is the right medium to be used as a learning medium and to support students' reading-writing literacy activities. The comic media used is the development of theme 1 material, sub-theme 2. From the material that has been determined, the researcher creates comic scenarios, sketches characters and backgrounds through books, illustrates images using applications.

The features of the comic developed are the main cover of the comic, Core Competency (*Kompetensi Inti*/KI) and Basic Competency (*Kompetensi Dasar*/KD), indicators, parts of the comic, learning objectives, comic content, practice questions, author biography, back cover. The comic section is made into six parts, which are adjusted to the amount of learning in that theme. So that the stories in the comics are based on the material contained in the theme book, but are packaged into reading stories in everyday life that contain information and fictional texts.

2.1.4 *Utilize technology, media, and materials*

If the teacher has determined the appropriate teaching materials and media, the teacher can use them properly with the method that has been chosen. There are several processes that need attention:
a)   Preview, check the technology, teaching materials or learning media that will be used for learning according to the purpose.
b)   Preparing a learning environment that supports the use of teaching materials used in the learning process.
c)   Preparing students to achieve maximum learning outcomes.
d)   Providing learning experiences focused on students to obtain maximum results.
e)   Require learner participation, involving students to be active in learning so they can feel and implement and evaluate themselves as a form of learning outcomes.

The product is then implemented to students to find out the effectiveness of the media. In the application of the developed media, the media in the form of LISSI comics that will be used are prepared first, followed by preparing students who are the research subjects, namely grade 3 of SDN 2 Ringin and SDN 1 Sendangmulyo.

2.1.5 *Require learner participation*

When students participate in the learning process, learning will be more effective, efficient, and have its own charm (Syahril, 2018). In addition, students will more easily understand the material and can foster their learning motivation. Teachers must be able to design learning by involving students' mental schemes and learning experiences that are memorable and meaningful.

This participation contains student activities in the learning process which will be carried out using LISSI comic media for reading-writing literacy. Starting from the initial delivery of learning objectives, the use of LISSI comic media, to the question and answer process related to practice questions contained in comic books, and learning evaluation. The comic media developed will be tested in two stages, namely limited scale trials and wide scale trials to determine the feasibility of the media. The limited-scale test aims to determine the feasibility of a limited initial product which is carried out in small groups, while the wide-scale test aims to determine the feasibility of the product both in terms of its application in learning, media development, and in terms of visuals so that the resulting final product is suitable for use in learning and to support students' reading and writing literacy.

2.1.6 Evaluate & Revise

The evaluation and revision stages aim to assess effectiveness, efficiency, and to assess the achievement of student learning outcomes (Syahril, 2018). There are three things to do in this process:

a) Assessing learning outcomes, namely developing criteria for student work. This assessment is carried out to measure the level of understanding of the material that students have learned.
b) Assessing learning methods and media, namely analyzing student reactions to the learning methods or media used. This is needed to obtain data in a smooth way.
c) Revision, if the results of the evaluation show weaknesses in certain components, then return to that section by planning and revising it to obtain maximum results.

2.2 Research Subjects

In research on the development of LISSI comics as thematic learning media for students' reading and writing literacy, the research subjects used consisted of two material experts, two media experts, and users (teachers and students).

2.3 Data Collection Techniques and Types of Instruments

In this study, the data collection technique used was a non-test technique. Data obtained from observations, interviews, and questionnaires, which are used to analyze needs and analyze media feasibility. The results of the needs analysis were obtained from the results of teacher interviews and observations during class learning. While the results of the media feasibility analysis were obtained from the media feasibility assessment by a team of experts and field practitioners. Some of the instruments used in this study are as follows: (1) Interview sheets and observation sheets to determine student needs analysis. Interview sheets were given to grade 3 teachers at SDN 1 Sendangmulyo and SDN 2 Ringin to find out in detail the conditions that occurred in the field. (2) The media assessment sheet in the form of a validation sheet is used to assess the feasibility of the developed learning media. This validation sheet was given to a team of experts namely, two material experts, two media experts and field practitioners. (3) Student response assessment sheets are used to assess the quality of LISSI comic media used as learning media.

2.4 Data Management Techniques

In this study, data processing was carried out by analyzing teacher interview data, response questionnaires, and expert validation questionnaires. In the results of teacher interviews and student response questionnaires, the data analysis technique used was Miles and Huberman's data analysis theory with several stages, namely through data collection, data sorting, data presentation, then drawing conclusions and verification. While the results of the expert validation questionnaire were analyzed using the Likert scale technique which was concluded descriptively.

2.4.1 Media validity test

In the testing stage for the validity of the LISSI comic media, it was carried out based on several types of assessment, namely on the material, media, and use of media in the field.

The instrument used was a Likert scale questionnaire to determine the feasibility of LISSI comic media as a learning medium for students' reading and writing literacy. The questionnaire or questionnaire given to the validator is reviewed from several aspects. Table 1, Table 2, and Table 3 show several aspects of the assessment that must be assessed by material experts, media experts, and field practitioners.

Table 1. Aspects of material expert assessment.

Indicator	Question item
Aspects of suitability	5
Aspects of language use	6
Presentation aspect	4
Amount	15

Table 2. Aspects of media expert assessment.

Indicator	Question item
Media display color and shape	9
Media size	3
Media typography	3
Illustration	5
Amount	20

Table 3. Aspects of assessment of field practitioners.

Indicator	Question item
Aspects of language use	4
Aspects of comic content	4
Learning evaluation	4
Amount	12

To measure the validity of the media developed based on the data that has been obtained, it is necessary to measure the psychomotor domain using the Formula 1 (Arikunto, 2015).

$$P = \frac{\sum x}{\sum xi} \; x \; 100 \; \% \tag{1}$$

Information:

P = the percentage of validity

$\sum x$ = total score obtained from expert experts

$\sum xi$ = total maximum score

100 = constant value

Furthermore, the results of the values obtained are then converted based on the interpretation in Table 4.

Table 4. Table of Validity Interpretation

Percentage (%)	Criteria Level of Validity
80-100	Valid
60-79	Pretty valid
40-59	Less valid
0-39	Invalid

2.4.2 Student response assessment instrument

At the field trial stage to measure interest in the learning media being developed, a questionnaire will be given to students after they use the LISSI comic learning media. Table 5 shows the assessment aspects of the student response questionnaire.

Table 5. Instrumental aspects of student responses

Indicator	Question item
Benefits Aspect	4
Completeness Aspect	3
Interest Aspect	3
Amount	10

2.4.3 Teacher interview instrument

Teacher interviews aim to find out the problems that exist in the field and the needs of students. Apart from the results of the class teacher interviews, the analysis was carried out by observing the learning activities in the class.

The data analysis was carried out on the results of teacher interviews, namely by reducing data using Miles and Huberman's theory, that the application of the analysis carried out must be interactive and take place continuously until the data obtained is saturated. There are three series of activities carried out in data analysis, these stages can be seen in Figure 1 (Miles & Huberman, 1994).
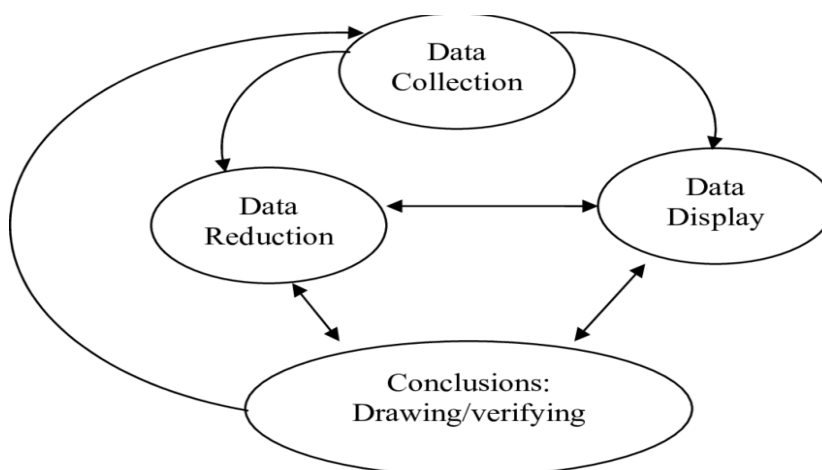

Figure 1. Componen of data analysis: flow model

2.4.4 LISSI Comic

LISSI Comics is an acronym for Fictional and Information Literacy Comics. LISSI comics contain fictional stories and information according to grade 3 learning materials which were developed with the aim of developing students' literacy.

The developed LISSI comic media is presented in the form of print media and digital media. LISSI comics contain learning material in the form of fiction and non-fiction stories in accordance with the learning content material in the theme book. Each story in the LISSI comic features different characters according to the material being studied so that the storyline is not boring. LISSI comics are designed according to competence, learning objectives, as well as indicators of literacy in reading and writing that are aligned with problems in everyday life. By linking it to everyday life, comic media can be easily understood and can support students' literacy interest in reading and writing.

3. Results

3.1 LISSI comic design

The learning media developed is LISSI comic media as a learning medium as well as for students' reading and writing cycles. LISSI comics contain fictional stories and

information adapted to learning materials for grade 3 theme 1 sub-theme 2. LISSI comics were developed as an innovation in the development of increasingly sophisticated media and interesting variations of their forms to be used as learning media for literacy literacy because comics are considered to increase understanding. students and planting character values in learning materials (Puspitasari et al., 2021).

LISSI comics are designed in the form of print and digital media, because then the use of comic media can be used anywhere and anytime according to the needs of the teacher in the teaching and learning process. The use of comics in the learning process is useful for attracting students' attention, increasing students' interest in reading, creating a fun learning atmosphere, reducing boredom in the learning process, and increasing student understanding. from the subject matter (Batubara, 2021).

The process of designing and developing LISSI comic media is done by making sketches using pencils and drawing books. To get a visually attractive character design, sketch editing is done using the sketchbook application, where the results of the pencil drawing sketch are redrawn and colored to get the desired character. Furthermore, the comic is edited in full using the 2021 version of the CorelDRAW application to obtain the comic in the form of a soft file. Then comics are used as media in the form of print and applications where each has the same content even though it is in a different form. Printed and digital comics have different sizes because they adjust to the fields used, where in general digital media such as cellphones have narrower fields than printed comics (Ponsard & Fries, 2009).

The results of the LISSI comic design development research for literacy literacy are described based on Research and development steps using the ASSURE model. The data obtained from the results of research at each stage of LISSI comic development are described in the following description.

3.1.1 Analyze learners

From the results of the analysis of the data obtained based on the development flow carried out, that the students of SDN 2 Ringin and SDN 1 Sendangmulyo have a learning style in a visual way in terms of their learning habits using picture media. On average students already have the ability to read and write, but understanding of the information obtained is still lacking due to the lack of reading material and available books that do not attract students' attention as supporting materials for literacy literacy activities at school.

From the results of teacher interviews, the average grade 3 students at SDN 2 Ringin and SDN 1 Sendangmulyo are able to read and write, because this is the basis for literacy activities to run. So it must be ensured that students can read and write. And the results of observations during the initial tests and learning activities prior to the application of the media that were developed were that students were quite capable of carrying out reading and writing activities, searching for and searching for information, but had not been able to process information to the fullest because of an understanding of information as a basis for later learning. analysis is still lacking. Students also have not been able to develop their understanding and potential because the basic understanding of information has not been fulfilled, so that students have not been able to develop their understanding. This statement is supported by test results in which the average student score is 58.6 (SDN 1 Sendangmulyo) and 55.9 (SDN 2 Ringin) so they have not yet reached KKM ≥ 75.

In addition, the teacher is very interested if the LISSI comic learning media is applied in learning because previously the teacher has never used comic media as teaching material. Besides being used as a learning medium, LISSI comics can also be used as supporting material for students' reading and writing literacy.

The results of the teacher interviews also showed a lack of students' literacy skills because reading materials at school were lacking and the books available were not interesting. The teacher also mentioned the need for media to increase students' understanding of story problems so that students could imagine stories in reading.

3.1.2 State standards and objectives

Because seen from the average ability of students who already have the ability to read and write, so that the classification of objectives can be adjusted to the learning objectives and support the implementation of literacy activities for students.

3.1.3 Select strategies, technology, media, and materials

In a learning that involves media and technology, it certainly requires a systematic learning design. The learning strategy used in this research is student-centered problem-based learning. The learning media used is visual media developed in the form of LISSI Comics (Fictional Text Literacy and Information) as a medium to support students' reading-writing literacy activities.

3.1.4 Utilize technology, media, and materials

The next stage is the implementation stage of LISSI Comics media. At this stage the teacher's role is as a facilitator and motivator in learning, so that learning is student-centered (Syahril, 2018). Before learning begins, the LISSI comic media that will be used as learning media is checked first to ensure that the media can be used properly. Furthermore, the teacher can condition the class so that students are able to adjust before learning begins, after which grade 3 students who are used as subjects can take part in learning using LISSI Comic media. Students ask and answer questions with the teacher regarding the learning material contained in comics. Furthermore, students can complete the practice questions contained in the LISSI comic. As a form of student learning outcomes reflect on each lesson that has been carried out at the end of the lesson and given an evaluation at the end of the meeting.

3.1.5 Require learner participation

Student participation contains activities during the teaching and learning process. Student involvement is arranged in such a way as to present good interaction and communication between teachers and students.

3.1.6 Evaluate & Revise

Evaluation activities are obtained from student learning outcomes after using the developed media. The learning outcomes are assessed from the results of observations and group discussion rubrics. Assessment is carried out from the beginning of learning 1 to the end of learning 6.

In the media evaluation, validity tests were carried out on experts in the field of media, materials, and field practitioners who carried out to improve or revise products based on comments and suggestions for improvement from five validators including two material validators, two media validators, and one field practitioner.

3.2 Media Validity

To determine the level of feasibility of the developed media, a validity test was carried out. There are several validation tests, namely validating materials, media, and field practitioners. Material validation was carried out by a material expert, namely Mr. Muhammad Noor Ahsin, M.Pd. and Ms. Lintang Kironoratri, M.Pd., while the media validation was carried out by a media expert, Dr. Nur Fajrie, M.Pd. and Mrs. Fatikhatun Najikhah, M.Pd., and the field practitioner is Mrs. Pini, S.Pd.. Based on the calculation results of the data recapitulation obtained from the validation of media experts, materials, and field practitioners, it is presented in Table 6.

Table 6. Expert Validity Recapitulation Results

Expert Validation	Score Acquisition	Maximum Score	Average Score (%)	Category
Material (1)	63	75	84	Valid
Material (2)	62	75	83	Valid
Media (1)	80	100	80	Valid
Media (2)	94	100	94	Valid
Field practitioner	50	60	83	Valid
Average Score Acquisition			85	**Valid**

Based on the percentage of validation results in the table, all three show valid categories. The material expert validation shows a percentage of 84%, media experts 88%, and field practitioners 83%. The total average score obtained is 85% which indicates a valid category.

From the results of this assessment there were several corrective comments from the expert team as a refinement of the LISSI comic media. The part that needs to be fixed is the addition of the main cover of the comic, the opening part of the comic, and the identity of the creator. Here is an image of the LISSI comic that has been corrected. Before being given the main cover, in LISSI comics there was only a sub-learning cover. Figure 2 is the cover image of the LISSI comic that has been added.
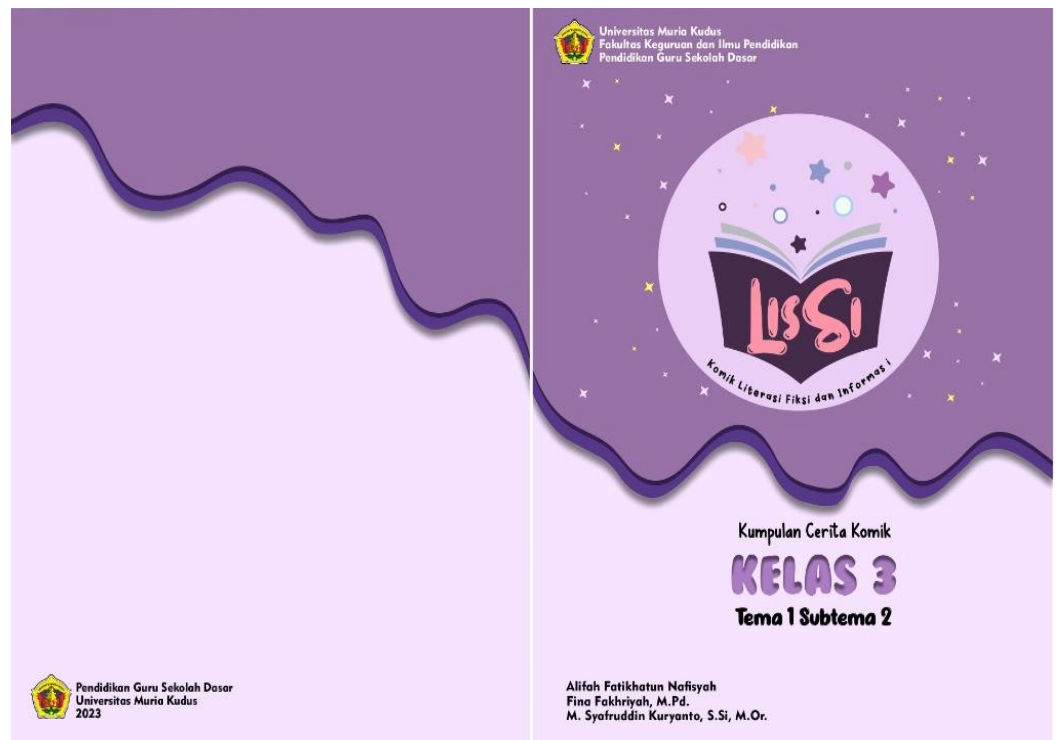
Figure 2. The main cover of the comic LISSI

Prior to making improvements, the LISSI comic did not have an initial section such as preface, table of contents, learning objectives, etc. So Figure 3 shows one of the early parts of the added comic. In the LISSI comics before the improvement, there was no author's identity, in Figure 4 is the author's identity that has been added.

Figure 3. The early part of the LISSI comic

Figure 4. Author identity

4. Discussion

Based on the final results obtained, LISSI comics were adapted to the characteristics of the students' needs. With a visual learning style that students like, LISSI comics can make it easier for students to understand their learning material. Thematic comics can make it easier for students to solve problems that have been given by the teacher, students like comics as a medium in learning because there are lots of colors and pictures in it so that learning becomes interesting to study. In addition, students also gave their opinion that because learning material is changed in the form of everyday sentences, learning becomes easier to understand and understand (Devi et al., 2020; Subroto et al., 2020). Likewise with the LISSI comic media, the relevance of this study is that learning material is packaged in comic form in the form of a series of stories complete with pictures, aiming to facilitate students' understanding because the language and problems in it use the interrelationships of problems in everyday life.

There is the development of comics as a medium for learning science to increase scientific literacy, which results in less than optimal results. That is found in the characters used are the same as the characters contained in the theme book, and their use is less effective because the product is only tested on limited subjects. So it is necessary to develop more varied comic characters so that they are not boring and try out on other subjects (Putri et al., 2021). Comics are profitable narratives to convey certain information. Thus, through interesting delivery, difficult material can be easily understood by students, and the learning process can be carried out smoothly (Negrete, 2013).

The advantages of comics as learning media include: (1) comics are quite simple; (2) has a story structure that contains extensive information, but can be packaged in a concise and simple way; (3) using communicative verbal language; (4) the use of verbal and non-verbal language can accelerate the reader's understanding of the contents of the reading; (5) the visualization of expression in comics invites the reader to be emotionally involved, so that the reader wants to finish the story to the end; (6) apart from being used as a learning medium, comics can also be used as a learning resource (Lanti, 2017). While the advantages of LISSI comics developed by researchers include: (1) practical forms of comics, namely in the form of books and applications, (2) can be used anywhere and anytime, (3) as a support for the literacy movement in reading and writing at school and at home, (4) can be provided as needed and in large quantities at once, (5) the manufacturing costs used are affordable, (6) the design of the image illustrations has a positive influence on students, (7) the material presented is in accordance with the level of students' thinking, (8) it is used as a learning support medium, (9) LISSI comic media directly involves students in learning, (10) contains characters and values that can be applied in everyday life.

The need to devise strategies to support learning, so as to create fun learning. So that basic knowledge and skills for future learning should be prioritized (Antonowicz, 2021).

Regarding the LISSI comic design, it is shown in a very interesting and not monotonous manner, so that it can support students' literacy during learning activities. Each indicator of literacy skills is presented through dialogue, story illustrations, practice questions found in the LISSI comic media. In the use of LISSI comic media, teachers can use it easily, there is only an obstacle to the lack of comics prepared for students totaling 36 students. So that learning is not conducive, and the use of LISSI comic media is not optimal.

The test results at SDN 1 Sendangmulyo and SDN 2 Ringin obtained a good response in their use as learning media for literacy literacy. In the average aspect of benefits, LISSI comics get a score of 93%. This means that students feel the benefits after using LISSI comics. Meanwhile, in terms of interest, the average score obtained was also 93%. From the results of observation notes during research activities students often asked about making comics and whether the comics were self-made, this means that students were very curious and interested in the LISSI comic media they used. Students also used LISSI comic media with full expression when reading it, they had dialogues and divided roles

to imitate the speech bubbles in the picture. This excitement really illustrates the students' interest in the media used.

From the results of the group rubrics that were assessed during learning activities using LISSI comic media, the level of student cooperation ability of each research subject obtained a score of 92% and 86%, on the aspect of ideas during group activities the scores obtained were 97% and 84%. Students are also quite active when learning using LISSI comic media, the scores obtained are 91% and 86%. And in the aspect of communication and enthusiasm students have the same score, namely 90% and 86%. From the results, the percentage is quite high so that it can be concluded that LISSI comics have an effect on literacy literacy indicators that students can participate in the social environment. Improving students' social participation skills is marked by the attitude of students who are enthusiastic about doing modeling and practice directly (Widodo, 2018).

LISSI comics are learning media that are packaged in the form of print media and digital media that contain fictional stories and information to facilitate students' understanding. One of the digital media that can be used to improve literacy is e-books, because they make it easier for readers to get reading sources that are interesting, inexpensive, and can be read anywhere, anytime, as well as easy storage and light weight that can be taken anywhere. just. Thus LISSI comics can be easily used by students and teachers as learning media and supporting literacy literacy wherever they are (Warsihna, 2016).

5. Conclusions

This research has developed LISSI comics as learning media for students' literacy. The results of the material expert validation assessment obtained percentages of 84% and 83%, assessments from media experts obtained percentages of 80% and 94%, and assessments from field practitioners obtained percentages of 83%. The average overall score obtained results of 85% with a valid category. Thus LISSI comics are appropriate to be used as teaching materials for students' reading and writing literacy.

Some suggestions for developing this media are: (1) for the use of LISSI comic media, it is more effective if it is used in a smaller number of student groups; (2) the use of LISSI comic media with digital versions, teachers and students must use supporting facilities, namely Android cellphones. (3) the need for further research related to the effectiveness of comics as a learning medium.

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