

Development of Thematic Learning Media For Comics for Beautiful Themes of Diversity My Country to Improve Results Student Learning in Fourth Grade of Public Elementary School 028071 Binjai City

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Abstract— This study aims to produce learning media in the form of comics that are suitable for use on the theme of the beauty of the diversity of my country in the fourth grade of elementary school 028071 from this media to have an impact on better student learning outcomes, especially on the beautiful material of the diversity of my country. This research is a development research using the ADDIE (1990) development model which consists of 1) analysis, 2) design, 3) development 4) implementation 5) evaluation. The instrument used in the study was the feasibility validation sheet covering aspects of content / material, language and presentation / design of comics, as well as learning outcomes tests. The first trial was conducted on 20 students of class IV-a and the second trial was conducted on 25 students of class IV-b at SDN 028071 Binjai Selatan. The results of this study indicate that: (1) the learning comic media developed are appropriate for use; and (2) learning comic media on the theme of the beauty of my country's diversity has been effective, seen from the students' learning completeness achievement. Furthermore, it is suggested that teachers can use learning comic media as an alternative to learning to improve student learning outcomes.

Keywords—development research, learning media, comic, learning outcome.

I. INTRODUCTION

The development of science has influenced the development of human life. One of them is Japan in carrying out Meji restoration which encourages continuous thinking and learning, and discipline. The Japanese efforts to catch up by sending their students to various countries in Europe. This program makes a lot of books from various countries in Europe selling information into Japanese cheap so that the transfer of science and technology to the Western world to Japan. Thus encouraging the Japanese population to increase reading interest. The habit of reading, thinking and studying and improving the ability of the Japanese people to become an advanced industrial country in the world (1). restoration of the Japanese nation a reference reference for other countries to compete in the era of globalization.

One of the programs of the Indonesian nation in increasing human resources so that they are able to compete in the era of globalization is through the reading interest program of students to become human beings who believe and have devotion to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent and become democratic and responsible citizens (2). However, the reading interest of the Indonesian people including our students is still low. Our society prefers oral or spoken culture. We are not yet a society book reader. This condition is different from the countries around us, which have made reading them a routine activity every day, which certainly triggers the low reading ability of our society, this is inseparable from the role of schools.

Schools that should be designed to foster a passion for reading. Students as educated people are required to always follow the latest information developments. However, this is not the case. In a study, it was revealed that most students were more concerned with buying cellphone credit than buying books. In many cases, students prefer to enjoy communicating with their cellphones rather than reading and adding to their book collection. (3). Books, in essence, in the meaning of bound sheets of paper are merely a form of human initiative and work which functions as a medium of communication or information. As a source of information, books are naturally powerless before they are utilized by humans. Without human desire to communicate, books never exist. Even books themselves only came after human civilization and culture began to step into the cultural written verbal communication. (4).

Back to the problem of reading interest in Indonesia, which is classified as low because Indonesia has experienced a cultural leap from speech to viewing, without going through a reading culture first. Most Indonesian people use their spare time to watch tv rather than reading. This is reinforced by data from Vincent Greannary quoted by the World Bank in an Education Report "Education in Indonesia From Crisis to

Recovery" in 1998 conducted a study on the reading ability of children in grade VI primary schools (5). The results of the study indicate that the reading ability of grade VI elementary school children in Indonesia is in the last position with a score of 51.7 after the Philippines with a score of 52.6 and Thailand with a score of 65.1 and Singapore with a score of 74.0 and Hong Kong which obtained a value of 75.5 (Asri, 2012). The above is also reinforced by data from the International Education Achievement (IAE) in 2000 which states that elementary school students' reading interest in Indonesia is ranked 38 and junior high school students are ranked 34 of the 39 countries studied. This value is measured by the average reading ability. Regarding reading interest, the 2003 UNDP report states that Indonesia is ranked 39th out of 41 countries studied. In 2006 BPS (www.bps.go.id.) 85, 9% of the Indonesian population chose to watch television, 40.3% listened to radio and 23.5% chose to read newspapers. UNDP 2008/2009. (6).

As low reading interest triggers low education in Indonesia. In 2012, it was reported that Indonesia was ranked 64th out of 120 based on the Education Development Index (EDI) assessment or the Education Development Index (7). Meanwhile, based on the Human Development Index (HDI) released on October 5, 2009, Indonesia is in the Middle Human Development category with an HDI Index of 0.734, and is in 111th place out of 180 countries. This position is far behind our neighboring country, Malaysia, which is in the High Human Development category with an HDI index of 0.829, and is in 66th place. HDI is a comparative measurement of life expectancy, literacy, education and living standards for all countries around the world (8).

If you look at the education program in Indonesia above in the current modern era which prioritizes quality, teachers must anticipate by using various available sources, in an effort to overcome the problems faced by students. So that the teacher is able to make learning that is able to foster a student's mindset to be more critical, creative and moral.

However, in reality the world of education in Indonesia is concerning, because the interest and motivation of students in reading or literacy is very low, even though reading activities are important so that they also have an impact on student learning outcomes. Because by reading the horizon students think more logically than building students' mindset from a culture of speech and sight alone. The culture of reading is a way for the advancement of the Indonesian nation's education, which has an abundant amount of territory, population and natural resources that the Indonesian nation should be able to maximize.

To overcome this, education in today's era is increasingly dependent on quality, anticipate teachers to use various available sources, in an effort to overcome the dynamics faced by students to prepare for learning that can foster student thinking to be more critical and innovative. Therefore, the teacher as the principal of education in schools is required to be able to make innovations in learning. It aims to create a learning process that is in accordance with the challenges and what is needed in this era of globalization, regardless of the

suitability of the students' conditions. One of the efforts to create a learning that is in accordance with today's demands is for example Active, Creative, Effective, and Enjoyable Learning (PAKEM) which later on this learning will be able to improve student learning outcomes and make students excel in facing today's global competition.

From the explanation above, I tried to make field observations at SDN. 028071 Binjai where I found several notes where only a small proportion of teachers were able to be creative in making creative learning media without relying on textbooks. The fact is that the presence of textbooks as teaching aids has not been functioning optimally, because based on the results of my interviews with SD 028071 Binjai students, they experienced boredom because they were told to read the textbooks. Meanwhile, the opinion of the teachers is that if there are no student textbooks, it will be difficult for them to convey the material even though there are many resources for teaching today, even with many sources, they even help teachers to make their own teaching materials.

Here I see the saturation of students in textbooks because textbooks tend to contain writings, while the characteristics of students in elementary schools that are concrete operations prefer books that also emphasize the number of visuals or the number of pictures, such as comics.

In addition to teacher creativity, learning success is also inseparable from learning tools such as interesting learning media. Interesting learning media will help teachers and students understand the concepts of the material to be discussed. With learning tools, the teaching and learning process in the classroom will run actively, creatively and pleasantly so that what the learning objectives can be achieved (9). In order to achieve the success of the learning objectives, it is not only the creativity of the teacher but also many factors, one of which is the learning tools available, such as the facilities. The facilities factor, is everything that greatly affects the smoothness of the learning process, for example learning media, learning tools, school supplies and others. (10)

One of the fun learning tools for students in question is comic teaching materials. As has been explained earlier in the explanation that commenting on teaching materials in Japan is not a new thing. From basic subjects such as history, physics, biology, philosophy, many have designed them in comic book form. This was also stated by (11). Comics are a form of reading in which students are expected to read without feeling forced / having to be persuaded. This statement is certainly inseparable from the assumption that comic stories are easier to digest with the help of the images in them. The advantages of reading comic books have been widely used by developed countries as a tool to increase children's reading interest in textbooks. One country that has used comics as one of the supporters of its educational success is Japan. (11).

The statement above is in line with (Juhri, 2005) that comics are a form or style of presenting reading books that are liked by many children. From some of the opinions above, by innovating learning tools, for example teaching media into comics, is quite efficient for teachers in achieving learning objectives. Because comics are clearly used to attracting

elementary students' interest in reading, it is hoped that they will also have a positive impact on their learning outcomes.

In this country, comics are not foreign objects that are used as media in learning. In fact, some school books in Japan are published in comic form. In fact, comics are a very effective learning medium and are very attractive to students with their pictures and straightforward way of telling.

Comics are a unique and interesting learning medium. Comics are also simple, clear and easy to understand. Comics have their own charm in the form of a combination of stories and pictures so they are easy to digest and do not seem patronizing so they can be used as learning media. Comics can be in the form of books, illustrated story sheets, stories in newspapers and magazines, or in the form of cartoons. Most of the comics are related to things that are found in everyday life. The story of the story contains the adventures of the character which are peppered with cuteness so that the appeal is not easily lost. Comics have short, eye-catching stories, complemented by action. In addition, comics are made more alive and processed by using the main colors freely. Comics are cartoon stories that portray a character in a story with the intention of conveying the contents of the story to the reader. Instructional comics in education are educational in nature and create clear and communicative message delivery elements. Comics are a form of reading in which students read them without having to be persuaded {Prasetyo et al (in Ahmad Rohani, 1997: 79)}.

These thematic-based comic books can become textbooks in schools which are expected to have a very important role in determining the level of learning success. This student handbook, can give students the opportunity to understand the theme of my hero so that students have a sense of nationalism in the nation and state, for example students are able to apply the example of a hero they read in this book in everyday life. Therefore it is very reasonable that (Supriyo, 2015) concludes the results of his research, he says that there is a positive and significant effect of using textbook media on student learning outcomes.

In the thematic learning process, the theme of the Beauty of My Country's Diversity cannot be separated from concentration students' attention, the presence of students' reading interest in students will provide strengths such as motivation and activities for greater learning. Thus it is expected that with good learning guidance, the ability of students to understand the concept of material can be improved.

The theme of the Beauty of My Country's Diversity is one of the main subjects of the fourth grade of elementary school in the second semester. I took this theme as material in my research because in the theme of the Beauty of the Diversity of My Country there are values of a sense of nationalism, tolerance and mutual love that students must have from an early age for future provisions in society so as to create superior, intelligent and honest young generations. so that the integrity of the State's sovereignty is maintained and is not divided.

Unlike the events seen in electronic media where students who are students are not like religious students, insult each other on intolerant social media to racism, until a student kills his own friend, one of the problems is racism. This is what we hope will not happen in the future, especially the generation of students in Indonesia.

(Maulani, 2012) which states the importance of students learning the values of diversity Multicultural education is increasingly urgent to be implemented in schools. With multicultural education, schools are a place to eradicate prejudice, and at the same time to train and build the character of students to be able to be democratic, humanist and pluralist.

Because the theme of the Beauty of My Country's Diversity is included in the category of social studies, there is a slight dilemma in social studies learning according to research (Agustinawati (in Hasan, 2012) said that social studies learning is dominated by the fact that students are required to memorize the facts of concept names in social studies learning, causing boredom that has an impact One of the factors in student learning outcomes is the less attractive social studies teaching media. This negative impression arises because in reality in the field some teachers in teaching still apply a learning model that is not in accordance with the needs of their students. For example, the teacher only makes himself an information center with lectures, it does not mean that the teacher cannot lecture plus it only depends on one learning source, namely student textbooks, the worse is that students are told to read and record until the reading in the package book is finished, in SD.

Meanwhile, Gross in Solihatin and Raharjo (2007: 14) explains that social studies education aims to prepare a person to become a good citizen in his life in society. Social Science Education aims to develop one's abilities. Using his reasoning in making decisions for every reasoning faced in life everyday wrapped in diversity. But the statement above has not been fully reflected in the social studies learning outcomes of students at SDN 028071, why is that what I say, I see from the social studies learning outcomes in grade IV SDN 028071 Binjai. Indeed, the purpose of social studies can not only be measured from numbers, but in my writing it focuses on student learning outcomes, this situation can be seen in the table below.

Table.1.1 The Average Completion Value of SD Negeri 028071-District of Binjai Selatan Ta. 2019/2020 Semester I KKM = 75

No	Kelas	Jumlah Siswa	UTS Semester I	Ujian Semester I	UTS Semester II	Ujian Semester I
1	IV	20	70,40	72,55	73,65	75,15

(Source. Administration of SDN 028071 South Binjai District)

In my opinion, one of the factors above is the lack of attractive learning media so that it triggers students to like reading also has a bad impact on students because the information obtained and the expected learning objectives do not match the teacher's expectations. Students get bored quickly, especially students who are a little slow thinking, of course they will continue to

reduce their interest in learning so that it has an impact on their low learning outcomes. Not only a problem with learning outcomes, but also the character, mindset, critical thinking, and students' logic in solving social problems.

Social science is one of the subjects given starting from SD / MI / SDLB to SMP / MTs / SMPLB. IPS examines a series of events, facts, concepts, and generalizations related to social issues. At the SD / MI level, the social studies subject contains Geography, History, Sociology, and Economics. Through the social studies subject, students are directed to be able to become democratic, responsible Indonesian citizens, as well as peace-loving citizens of the world. In the future, students will face tough challenges because the life of the global community is always changing every time. Therefore, the social studies subject is designed to develop (Pendidiknas No. 22: 2006).

In line with the objectives of the curriculum, the objectives of the field of Social Sciences are to: (1) Get to know the concepts related to people's life and the environment, (2) Have the basic ability to think logically and critically, curiosity, inquiry, solve problems, and skills in social life, (3) Having a commitment and awareness of social and human values, (4) Having the ability to communicate, cooperate and compete in a pluralistic society, at local, national and global levels (Lindawati (in Guidelines for Curriculum Development) Elementary School Education Unit, BSNP page: 45)).

The difficulty in studying the theme of the Beautiful Diversity of My Country in the scope of Social Studies resulted in low learning outcomes on this theme. This has been previously explained in research (Agustinawati (in Hasan, 2012).

Also in line with (Nurani et al, 2015), the reality is that in elementary schools, it is not easy to change the mindset of students from learning separately to learning in an integrated manner. This change in learning approach actually creates learning barriers for students. There are still many students who experience obstacles in learning due to this change in learning approaches. The competence of a subject that should be mastered by students cannot be mastered according to what is expected. We as teachers who are the driving force of education must really have the ability to innovate in designing learning according to the needs of students or challenges in daily life in the future, what else today is usually called the conditions of the industrial revolution era 4.0 full of technology which can affect conditions Human life cannot be separated from the diversity in this state. If in carrying out learning we only use existing methods but do not pay attention to the challenges of life now, then what happens is that students only get a sheet that is usually called a diploma, students do not have the ability according to today's demands. One example is the flood of technology, all information is easy to get from the negative side, for example the spread of hoaxes has often occurred to threaten diversity in Indonesia, civil war everywhere, but seen from the positive impact we as teachers must be more up to date in designing learning, we use technology as a tool for helping reinforces the diversity or

diversity that there are many in Indonesia so that students who appreciate diversity in this country are created.

Once again, therefore it is necessary for the creativity of teachers in designing learning devices, and the school must always conduct evaluation and supervision in the learning process. A systematic evaluation is carried out to determine the progress and development and success of students after carrying out learning activities for a certain time. If it turns out that the evaluation does not produce the results desired, the principal as the mentor of the teachers immediately acts to evaluate the teacher to improve the ability to manage the learning process for students.

The importance of the professional development of teachers in the teaching process at various levels. As explained (Asmarani, 2014) that there are several activities to improve teacher professionalism, such as: 1) Reading educational books. 2) Read and write scientific papers. 3) Following the actual news from the news media. 4) Attending training.

Such efforts have also been made at SDN.028071 Binjai, in order to improve student learning outcomes. However, it seems that in the field it is inversely proportional to what the school has tried to achieve with student learning outcomes, especially in the field of social studies as listed in the table above.

Apart from the data above, I conducted an interview with a grade IV teacher at the school. The teacher provided data on the value of daily exercises on the theme The Beauty of My Country's Diversity and described it where KKM 75 turned out to be only a few students who completed with a score above the KKM, namely an average of 79 with many students who completed 9 out of 20 students. The rest is incomplete. This is because one of the factors is the teaching media that are not attractive to the theme of the Beauty of My Country's Diversity. There are still many students those who are not interested in stories about their national cultures are more familiar with foreign cultures, for example Korean culture in cyberspace, for example from Hand Phone, TV and others. Why this is more interesting is because cellphones, TVs contain more pictures that are liked by the characteristics of students than their books, which are more dominated by writing. To overcome this situation, one of them is the creativity of teachers in presenting learning, one of which is teaching media that can provoke the enthusiasm of students for more diversity in Indonesia.

Seeing the low learning outcomes in grade IV, it requires maximum and sincere efforts from the teacher through action to improve the learning process which includes approaches, methods, strategies and others. Actions can be taken by the teacher according to the situation of students who are more interested, among others, comic learning media that can increase learning activities on the theme of my heroes by applying a learning model that provides opportunities for interactive events.

Based on the description of the background above, the problems in this study can be identified as follows:

- Students' reading interest needs to be improved.

- Student interest and motivation are lacking because students are bored with the learning patterns presented by the teacher which have an impact on learning outcomes.
- Students are bored learning social studies.
- Low student learning outcomes.
- The lack of effectiveness of instructional media such as theme books circulating in schools still uses formal and descriptive language so that it does not provide reading interest for students.

- a. Student Character Analysis.
- b. Teacher Needs Analysis.
- c. Content Analysis.
- d. Concept Analysis.
- e. Concept Sequence Analysis.
- f. Analysis of Learning Objectives.
- g. Learning Strategy Analysis.
- h. Instrument Analyst

As for the formulation of the problem in this study are:

- What is the validity or appropriateness of thematic learning media in the form of comics developed on the theme "The Beautiful Diversity of My Country in the Sub-Theme of Ethnic and Religious Diversity in My Country".
- How is the effectiveness of thematic learning media in the form of comics that was developed on the theme "The Beautiful Diversity of My Country in the Sub-Theme of Diversity of Ethnic Groups and Religions in My Country". So that it can help student learning outcomes.

C. Design Stage

- a. Concept Design and Media Tools
- b. Design of Media Assessment Instruments

D. Development Stage

- a. Media Development
- b. Expert Validation (Material and Media)
- c. Design Revision (Revision I)

E. Implementation Stage

- a. One-to-One Trial
- b. Revision II
- c. Small Group Trial
- d. Revision III
- e. Field Trial
- f. Final Product Revision

F. Evaluation Phase

At this stage, data is obtained regarding the evaluation of media use.

II. METHOD

A. Research Type

This research is a research development (Research and Development / R & D). This method is used to develop comics as a teaching medium in the form of books for grade IV SDN students. 028071 Binjai based on the thematic 2013 curriculum. In this study, the ADDIE (1990) development research model used. The ADDIE model stands for Analysis, Design, Development or Production, Implementation or Delivery, and Evaluation. (Anglada, 2007 in Japa, 2012). The reason for choosing the ADDIE method is because this model provides an opportunity to carry out evaluations and revisions continuously in each phase that is passed. So that the resulting product becomes a valid and reliable product. In addition, the ADDIE model is also very simple in procedure, but its implementation is systematic. Supriatna and Mulyadi (2009) also explain that one of the functions of the ADDIE model is to become a guide in building training program tools and infrastructure that are effective, dynamic and support the training activities themselves. But not only in the field of training, development using the ADDIE model is certainly effective in developing learning media, especially textbooks.

In the context of learning the theme of the Beauty of My Country's Diversity, namely the 7 (Seven) theme in grade IV SD, the application of textbooks using the ADDIE model is considered quite appropriate, because it is considered in accordance with the learning objectives based on the five stages in model pengembangan ADDIE. Adapun ke lima tahan dalam model pengembangan ADDIE :

B. Analysis

The analysis stage includes the implementation of the analysis, namely:

- a. Objective Analysis based on Curriculum.

III. RESEARCH SUBJECTS AND OBJECTS

The research subjects were 20 grade students of SD Negeri 028071 Binjai. To test the validity of teaching media carried out in class IV SDN 028071 Binjai.

The trial was carried out with the following considerations:

- a. Availability of principals and teachers to accept innovations in teaching and learning that are innovative and constructive.
- b. Lack of students' interest in reading in studying the theme of the beauty of the diversity of my country, precisely in the sub-theme of ethnic and religious diversity found in teaching materials or student books.

And the object of this research is the development of comic teaching materials with the theme of the beauty of the diversity of my country in the sub-theme of the diversity of ethnic groups and religions in my country. The variables involved in this study are as follows:

- a. The determination of the validity of the quality of comic teaching media is based on the assessment of 1 comic and language design expert, 1 content expert who mastered the 2013 curriculum concept and 3 teachers. Retrieval of data using a questionnaire. The questionnaire contains indicators of the quality of comic teaching materials.
- b. The teacher's ability to manage learning is a score of the teacher's ability to carry out the teaching and learning process which consists of preparation, introduction, core

activities, cover, time effectiveness, and the ability to condition the class.

- c. Student activity in learning the theme of the beauty of the diversity of my country in the sub-theme of the diversity of ethnic groups and religions in my country using comics teaching media is student activity with many activities according to the theme studied in the learning process with student worksheet instruments (Instrument 03). The student activities in question such as focusing on listening and paying attention to teacher explanations either directly or through reading comics, obeying group division procedures, working together to solve problems, asking questions, expressing opinions, presenting group work and making conclusions.
- d. Student learning outcomes in the form of scores obtained by students from learning outcomes tests in the form of product learning outcomes tests and process learning outcomes (affective) tests as measured by learning outcome test instruments.
- e. The teacher's impression is the teacher's response or assessment of comic teaching materials and is assessed using the teacher impression instrument.
- f. Research procedure
- g. This research procedure was adapted from the ADDIE (1990) research and development model. The ADDIE model stands for Analysis, Design, Development or Production, Implementation or Delivery, and Evaluations developed by Reiser and Mollenda (1990). The ADDIE model which consists of 5 (five) stages (Branch, R.M,

suitable learning alternatives are designed. In carrying out this activity, it is viewed from the 2013 curriculum aspect. The theme developed for this comic teaching material is the theme 7 (Seven) "The Beautiful Diversity of My Country in the Sub-Theme of Ethnic and Religious Diversity in My Country" in class IV semester II.

B. Analysis of Student Characteristics

This activity is a study of student characteristics including affective, cognitive, background knowledge and social background. Based on this analysis, it will be used as a frame of reference in compiling comic teaching media.

In this study, the subjects were students of SDN 02807 Binjai, to be precise, grade IV with an age range of 9-10 years, this age range according to Piaget is in the concrete operational stage where they are able to do somewhat complex problems as long as the problems are concrete and not abstract. When I checked the data from the dapodic application or class data from the teacher, it turned out that the socio-cultural conditions of the students were very diverse, such as the work backgrounds of parents of civil servants, entrepreneurs, domestic helpers, laborers, private employees until it was unclear what profession they were. Apart from the ethnic diversity side of work, there are several ethnic groups of students that I found such as Javanese, Batak, Minang, Banjar, Sundanese, Malay, Aceh, Karo, Mandailing. With this difference, it is important to hold diversity-oriented learning so that cooperation between students develops mutual respect and acceptance of differences.

C. Teacher Needs Analysis

In this analysis, it relates to the needs of teachers which include learning tools such as learning media needed to achieve learning objectives. The final result of this analysis will basically be used as a frame of reference in compiling comic-based teaching media. One of the needs of teachers today is textbooks that are able to motivate students to be even more active in reading and also for teachers to easily convey material and concepts to students. However, this can be done by paying attention to the characteristics of the students and then developing the comic form teaching media with the themes previously mentioned.

D. Content Analysis

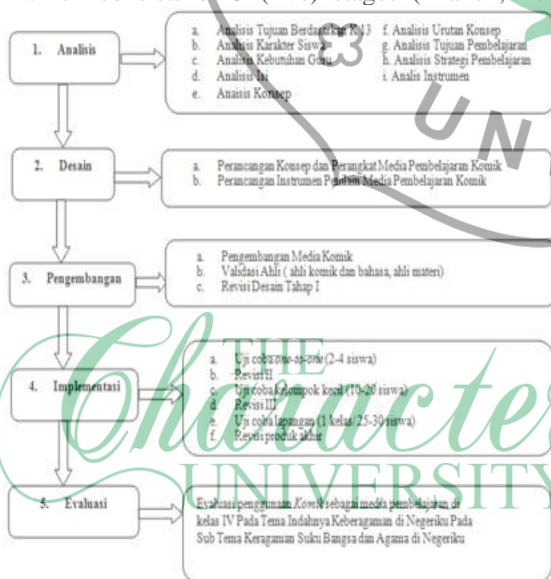
From the 2013 Curriculum theme 7 (Seven) "The Beautiful Diversity of My Country is taught in class IV semester two which consists of 3 (three) sub-themes, namely:

- 1) The diversity of ethnic groups and religions in my country
- 2) The Beautiful Cultural Diversity of My Country
- 3) The beauty of the unity and integrity of my country

Where for 1 (one) sub-theme consists of 6 (six) lessons. The explanation of the competence of this theme will be presented in the appendix in the form of an RPP.

E. Concept Analysis

After the explanation of the content analysis, concept analysis was born. Concept analysis is the identification of the



2009

Figure 1. Development Stage of Comic Learning Media

The initial analysis consists of several steps, such as:

A. Objective Analysis

This analysis aims to determine the basis needed in the development of this comic teaching media. From this basis,

main concepts to be taught and arranging them systematically and linking one concept to other relevant concepts and finally forming a concept map. For the theme of the Beauty of My Diversity, a concept map can be made as shown below:

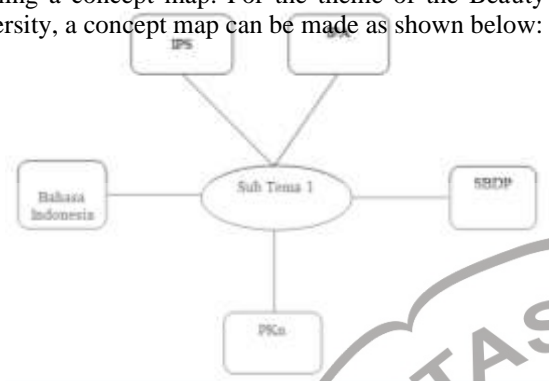


Fig 2. forming a concept map

F. Sequence Analysis of Concepts

This step aims to determine the concepts to be discussed in the teaching and learning process. The material taught must be in accordance with the abilities of students and be written systematically. The concept is as follows:

- 1) The diversity of ethnic groups and religions in my country
- 2) The Beautiful Cultural Diversity of My Country
- 3) The beauty of the unity and integrity of my country

This research focuses on Concept 1 (first).

a. Analysis of Learning Objectives. Learning objectives are based on concept analysis, because this analysis is a reference for formulating objectives by paying attention to core competencies and indicators of each basic competency.

The learning objectives are as follows:

- It is hoped that students will be able to correctly find information about ethnic groups in Indonesia.
- Students can state new information about ethnic groups in Indonesia correctly.
- It is expected that students can write difficult words in reading and be able to explain their meaning correctly.
- Students are able to solve questions related to diversity in Indonesia
- Students can apply the social values contained in their reading from books or comics that are developed
- Students are able to make a clipping entitled "The Beauty of Diversity in My Country"

b. Learning Strategy Analysis. This research is in line with one of the constructivist learning theories in which students build new knowledge with the knowledge they have acquired from their surroundings, their life experiences, what they see, hear, feel or remember. If we pull the red thread, it can be said that the student contextualizes his experience with the thing he is learning or the information he is learning is how he learns. This situation when associated with the learning approach fits the CTL approach in the development of this comic form media. According to Trianto (2011), a contextual approach is a conception that helps teachers relate

subject content to real-world situations and motivates to make connections between knowledge and application in students' real life. Curricula and instruction based on contextual learning strategies must be designed to stimulate 5 (five) basic forms of learning:

- 1) Relating (connect)
- 2) Experiencing (trying)
- 3) Applying (apply)
- 4) Cooperating (working)
- 5) Transferring (transfer)

c. Validation Instrument Analysis. In accordance with the research, namely to determine the effectiveness of comic teaching materials on the theme The Beauty of the Diversity of My Country in the Sub-Theme of Ethnic and Religious Diversity in My Country, this study will develop two kinds of validation instruments:

- Validation instrument to measure the quality of comic teaching materials.
- Instruments of quality learning outcomes.

The benchmark reference test instrument for assessing the quality of comic teaching materials is based on:

- Suitability of the material with the 2013 curriculum.
- The suitability of language with student characters.
- The concept of the material is clearly not ambiguous.
- Illustrations of images displayed attract students.

The process evaluation instrument is to describe the quality of the teaching and learning process that has been carried out by implementing CTL. Therefore an observation sheet instrument will be generated to measure:

- The teacher's ability to manage CTL as well as the application of teaching materials developed by the teacher / researcher (instrument 02)
- Student activity / student response to the application of the teaching materials developed (instrument 03)
- And a questionnaire will also be generated, namely: a questionnaire on the teacher's impression of the learning device (instrument 04)

Compilation of standard reference test instruments to assess the quality of learning outcomes based on the results of the formulation of learning objectives. The test is a tool to measure the behavior change in students after the teaching and learning process using CTL.

The expected changes in student behavior are in the form of products, processes, and affective.

G. Comic Learning Media Design

This stage is also known as designing a product that you want to make, this is a comic. The comic media design / design stage includes the initial product design as follows.

a) Comic Design.

- Determine the size and type of paper.
- Determine a comic story line that is adapted to the material coverage in the Seven Beauty Diversity Theme of My Country.
- Determine the number of pages on the Comic.

- Designing images that will be displayed in the comic.

b) *Design of comic media assessment instruments.* In developing this comic media, researchers also designed assessment instruments such as:

- Comic Quality Questionnaire
- Questionnaire Measuring Teacher Ability
- Student Activity Questionnaire
- Student Learning Outcomes Questionnaire
- Teacher's Impression Questionnaire

H. Development Stage

a) *The making of Comic Media* "The Beauty of Diversity in My Country" is realized based on the material and preliminary designs that have been determined by previous researchers and made by an expert (expert).

b) *Expert Validity.* This validity is carried out after all the developed tools have been compiled. Validation activities are intended to validate comic teaching materials. Meanwhile, other instruments such as the Learning Implementation Plan, observation sheets and questionnaires were not validated because these instruments were adopted and adapted from existing models according to the CTL approach model. Validation will be carried out by 2 experts / experts and 3 competent teachers in the field of social studies in the 2013 curriculum, education, and learning media, this cannot be separated from the effectiveness of teaching materials.

c) *Design Revision / Revision I.* Design revisions are carried out after validating the material and media to experts. It is possible that this revision / improvement will be done more than once.

d) Implementation Stage

1) *One-to-One Trial.* The trial is planned for February 2020 at SDN. 028071 District of Binjai Selatan in Class IV. This activity is carried out on a limited scale, namely there are at least 2 trial subjects with different levels of ability (Dick and Carey, 1978: 174). At this stage the media will be tested on 2 students. After being tested, the researcher will distribute student response questionnaires after using the media.

2) *Revision II.* Revision II is to make improvements to the media produced based on the results of one-to-one trials. This improvement was carried out in accordance with the results shown in the limited trials in order to obtain the main media that was ready to be tested more widely.

3) *Small Group Trial.* In this condition the product is tested on 10-20 randomly selected students (Dick and Carey, 1978: 160). In this stage the researcher will try out comic media to 10 students in grade IV SDN 028071 Binjai. At this stage, a questionnaire was also distributed to find out the responses / opinions of students related to the feasibility of the product being developed.

4) *Revision III.* Revision in stage III is carried out based on a student response questionnaire, input and suggestions from students from the small group test. However, this revision still considers input and suggestions from the validator

5) *Field Trial.* Field testing is the final stage of testing in this study. The subjects of field trials are groups of about 20 students who are able to represent the target population of the developed media trials (Dick You Carey, 1978: 162). In this stage the researcher will try out the media on a class of 20 students. At this stage, a questionnaire was also distributed to find out the responses / opinions of students related to the feasibility of the product and student learning outcomes such as the pretest during the teaching and learning activities and the final test (posttest). Test data twice with the technique of distributing validity questionnaires, teacher observation sheets, student activity sheets, and learning outcomes tests. This aims to obtain a small error rate in the development of teaching media and its use in the CTL approach in the learning process.



Fig 3. Concept Map of Activity Flow in Implementation Stage (Arfiliana; 2014)

During teaching and learning activities, observations are made of:

- a. The teacher's ability to manage learning
- b. Student activities
- c. Teacher impression

e) *Observations* are made by an observer who is oriented to the instrument the researcher has compiled. Before carrying out activities, the observer will be guided by the researcher regarding the observation activities during the trial.

f) *Final Product Revision.* The final product revision is the final stage of the product implementation process. This stage is the final revision of the field trial. This indicates that the media developed by the researcher is suitable for use. Evaluation of comic teaching media after all the tools developed have been tested. Reflection and revision are intended to evaluate and improve comic instructional media. This revision is carried out based on input and assessment obtained from expert validation and testing activities. The instruments used in this study were grouped into 4 types, namely:

- a. Comic teaching media validation instrument.
- b. Learning outcome test instrument.
- c. Observation sheet and.
- d. Teacher impression questionnaire

The validity of the comic teaching media in the form of a questionnaire using a Likert scale. The assessment criteria are classified at four levels with the following ratings:

- a. Not good
- b. Enough
- c. Good
- d. Very good. (Sudjana, 2007; 106)

This instrument is used to assess the quality of comic teaching materials as well as to find out the responses of experts to the teaching materials developed.

TABLE I. Comic Validation Questionnaire Instrument Grid

No.	Komponen	Sub-Komponen
I	Kelayakan Isi	a. Kesesuaian uraian materi dengan kompetensi inti dan kompetensi dasar b. Keakuratan materi c. Kemutakhiran materi d. Mendorong rasa ingin tahu siswa
II	Kelayakan Penyajian	a. Teknik penyajian b. Pendukung pembelajaran c. Koherensi dan keruntutan alur pikir
III	Kelayakan Bahasa	a. Akurat b. Komunikatif c. Kesesuaian dengan siswa
IV	Kelayakan Komik	a. Cerita bersambung antar bab b. Humor c. Kontekstual d. Tokoh yang berbeda e. Pewarnaan menarik f. Cerita ringkas dan menarik

I. Learning Outcomes Test

Learning outcome test instruments in the form of pretest and posttest were used to assess the improvement and effectiveness of comic teaching media. Through the quality of student learning outcomes at the beginning and after completion of learning with RPP.

THB on the discussion "The Beautiful Diversity of My Country in the Sub-Theme of the Diversity of Ethnic Groups and Religions in My Country" is in the form of an essay. THB is developed with reference to learning objectives that have been made based on the Bloom Taxonomy level in the cognitive domain which includes knowledge (C1), understanding (C2), application (C3), analysis (C4), evaluation (C5) and creating (C6).

TABLE II. Cognitiv Test

No	Indikator	Ranah Kognitif	Nomor Soal	TP
1	Menyebutkan beberapa suku-suku dan agama yang mendiami Provinsi Sumatera Utara	C1	1,3,5,7,	1
2	Mampu memberikan contoh keberagaman yang ada di Provinsi Sumatera Utara	C5	2,4,6,8,	5
3	Mampu membedakan antar suku dan agama	C3	10, 12,16,	3

No	Indikator	Ranah Kognitif	Nomor Soal	TP
4	Mampu menyelesaikan pertanyaan mengenai karakteristik tiap suku dan agama di Indonesia	C4	9,11,13	4
5	Mampu menentukan ciri dari suku dan agama yang disajikan dalam komik	C2	15,17	5
6	Mampu membuat karya dalam bentuk kliping	C6	19	6

J. Observation Sheet

Observations are made with an observation sheet consisting of:

a) *Teacher activity observation sheet*. This observation sheet includes aspects of preparation, introduction, core activities, cover, time management, and classroom atmosphere, as well as the use of the teaching media developed by (the researcher).

TABLE III. Teacher's Activity

No	Aktifitas Guru
1	Apersepsi
2	Persiapan perangkat pembelajaran
3	Persiapan alat praga/media
4	Penggunaan komik
5	Kesempatan memberikan tanggapan pada siswa
6	Memberikan motivasi, penguatan positif, dan contoh kegiatan
7	Kegiatan pembelajara sesuai RPP
8	Mengatur suasana kelas
9	Pemanfaatan waktu pelajaran
10	Memberikan kesimpulan

b) *Student observation sheet*. This sheet is used to see the effectiveness of the application of teaching materials developed using the CTL approach.

TABLE IV. Student's Activity

No.	Aktifitas siswa	
1	Perilaku Positif	1. Memperhatikan penjelasan guru
		2. Melakukan tugas dengan baik yang diperintahkan guru
		3. Berpartisipasi aktif
		4. Mengerjakan tugas-tugas yang diperintahkan guru
		5. Merespon positif (senang) terhadap CTL dan komik
		6. Mengerjakan tugas yang diberikan dengan senang hati
		7. Berani memberikan sanggahan terhadap hasil pekerjaan teman yang dianggap kurang tepat memberikan masukan untuk perbaikan
2	Perilaku Negatif	8. Kurang merespon instruksi dari guru
		9. Kurang bersemangat terhadap CTL.
		10. Banyak bicara bergurau dengan teman
		11. Pasif dalam Pembelajaran
		12. Berjalan mondar-mandir saat pembelajaran
		13. Mencontek
		14. Kurang bersemangat pada saat mengerjakan tugas
		15. Tidak tertarik dengan komik yang disajikan guru

d) *Comic Teaching Media Data Analysis*. This activity is used to validate the teaching materials developed to analyze the results of assessments given by experts and teachers to the quality of comic teaching materials which will use the percentage descriptive analysis method with the following conditions (Sudjana, 2007: 129)

$$\text{Percent Average Score (PRS)} = \frac{\text{Jumlah Skor}}{\text{Skor maksimal}} \times 100\%$$

90% ≤ PRS ≤ 100% = Very Good

80% ≤ PRS < 90% = Good

70% ≤ PRS < 80% = Enough

60% ≤ PRS < 70% = Bad

0% ≤ PRS < 60% = Very Bad

M. *Analysis of Learning Outcomes Test Data*

Before analyzing student learning outcomes as evidence of the effectiveness of the teaching materials developed, the THB instrument which will be used in real learning (trials I and II) is analyzed for its reality and validation. The reality and validity of the instruments were calculated based on the validity results data on different samples from trials I and II.

N. *Validation of Learning Outcomes Test Items*

To find out the validation of the test items, the product moment correlation with rough numbers is used, namely:

$$r_{xy} = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

(Arikunto, 2006:275)

Information :

∑Y = Total score

∑X = total item score

∑XY = times total item score

To interpret the meaning of the value of the validity of each item, the price is consulted with the critical price of r product moment with the criteria if rcount > rtable at 5% significant direction then the test is said to be valid.

Detailed interpretation of the correlation coefficient which is interpreted as validity (Suherman, 2001: 137)

0,80 ≤ r_{xy} < 1,00 = Very High Valid Test

0,60 ≤ r_{xy} < 0,80 = High Valid Test

0,40 ≤ r_{xy} < 0,60 = Middle Valid Test

0,20 ≤ r_{xy} < 0,40 = Bottom Valid Test

0,00 ≤ r_{xy} < 0,20 = Very Bottom Valid Test

r_{xy} ≤ 0,00 = Not Valid Test

Meanwhile, to determine the significance of the correlation obtained, the t test is used with the formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \quad (\text{Sugiyono, 2013 : 226})$$

K. *Teacher's Impression Questionnaire*

The teacher is asked to provide an assessment of the effectiveness during the learning process, the advantages and disadvantages of applying comic teaching materials with CTL and new phenomena when applying these teaching materials.

L. *Data Analysis Techniques*

This study uses 3 (three) types of data analysis methods, namely:

a) *Qualitative Descriptive Analysis*. Where to analyze information about responsive field conditions or suggestions from experts, teachers and students on teaching media developed through validity sheets, and to find out teacher responses to learning activities through observation sheets and teacher impression questionnaires.

b) *Quantitative Descriptive Analysis*. It is used to analyze the scores given by experts and teachers to teaching materials developed through validation sheets, and to find out the percentage of student activity through observation sheets.

c) *Statistical Analysis of the Validity and Reliability of Learning Outcomes Tests*. This analysis uses the product moment formula and inferential statistical analysis (t-test) is used to analyze the differences in pretest and posttest scores on student learning outcomes. Analysis of the t test (paired samples t-test) was assisted by using SPSS 17.0 software.

If the value of $t_{count} > t_{table}$, then the correlation is significant at the significant level $\alpha = 0.05$ with degrees of freedom $(dk) = N-2$.

III. RESULTS AND DISCUSSION

A. Analysis of Improved Learning Outcomes

This is to determine the increase in student learning outcomes in the material of ethnic and religious diversity in Indonesia. Between before and after the use of comics that were developed in learning, the average score was obtained from the initial test to the final test.

TABLE V. 6 Criteria for Student Learning Outcomes of the Ministry of National Education (2007: 32)

Tingkat Penguasaan	Kriteria
$85 \leq \text{Skor} < 100$	Sangat Baik
$71 \leq \text{Skor} < 85$	Baik
$56 \leq \text{Skor} < 71$	Cukup
$41 \leq \text{Skor} < 56$	Kurang
$0 \leq \text{Skor} < 41$	Sangat Kurang

To find out whether there is a difference between the pretest and posttest scores of one sample before and after the learning process is carried out, paired samples t-test will be used. This analysis uses SPSS 17.0 with a significant level of 0.05. If $\text{sig.} < 0.005$. Then there are significant learning outcomes before and after using the developed teaching media.

B. Analysis of the Effectiveness of Comic Teaching Media

The effectiveness of the media in this study is based on the following indicators:

- Learning process
- Student's motivation to study
- Student learning outcomes

The effectiveness of the learning media is achieved if it fulfills at least two or three of the indicators above.

In this study, the learning process and student motivation were obtained from teacher observation sheets, student activity sheets and teacher impressions. Analysis of teacher observation data and teacher impressions, directly described as it is to describe the teacher's impression or assessment of comic media. Student learning outcomes are determined based on benchmark reference assessments. With the formula:

$$P = \frac{Si}{Sm} \quad (\text{Depdiknas, 2008})$$

Each student is said to have completed learning if the proportion of the answer is correct $\geq 65\%$ and a class is said to be complete if in the class there are $\geq 85\%$ of students who have completed the learning. Then for completeness of the learning objectives, the average score obtained in each trial is ≥ 75 . (Depdikbud in Trianto, 2010: 241)

However, here the school has the authority to determine completeness. Based on the provisions of the known school (KKM) Minimal completeness criteria. SDN 028071 has a

KKM of 75 and classical completeness of 85% and completeness of objectives ≥ 75 . To generalize the effectiveness of learning outcomes on the theme of Beautiful Diversity of My Country before and after using comic book media with a normalized gain score formula:

$$G = \frac{(\text{Post-assesment} - \text{Pre-asesment})}{(100\% - \text{Pre-asesment})} \quad (\text{Depdikbud dalam Trianto, 2010 : 241})$$

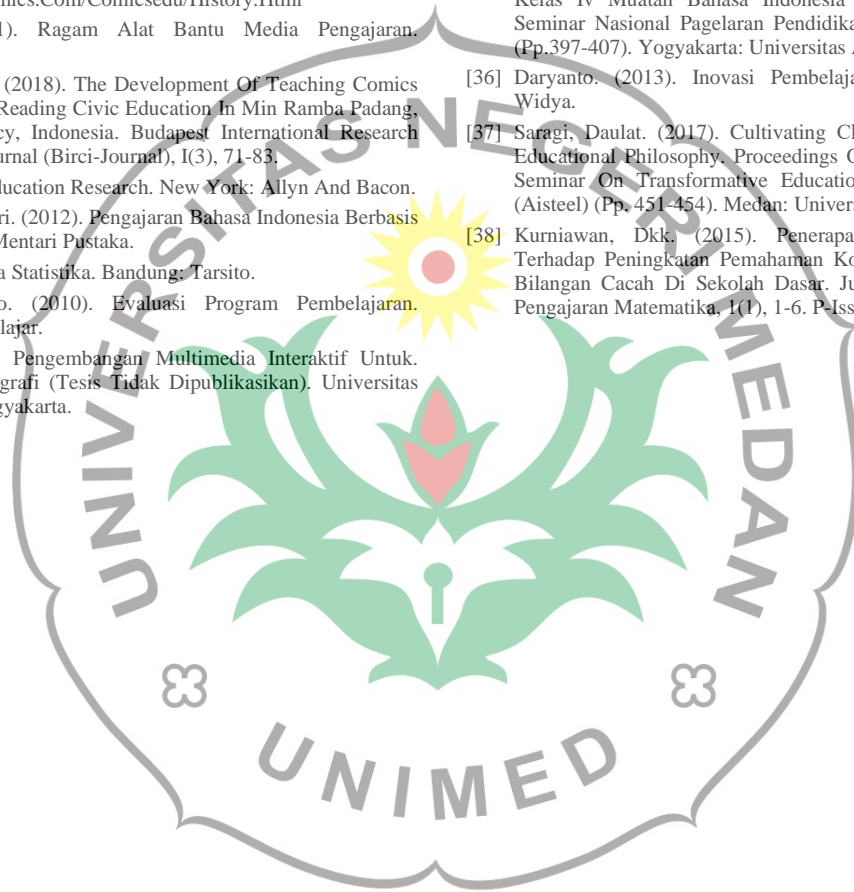
Gain score is a good indicator to show the level of treatment effectiveness from the Posttest score (Hake, 1999). The gain score categories are grouped as follows:

- $0,07 < gs \leq 1,00$ = high
- $0,30 < gs \leq 0,70$ = middle
- $0,00 < gs \leq 0,30$ = bottom

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