



# Development of Anti-Radical Comics Electronic Media Based on Local Wisdom (Mekar-Bekal)

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**Abstract:** This research is motivated by as education develops, the challenges of the government and educators are also getting bigger to protect their students from the infiltration of wrong teachings or ideas about religious understanding, which in the end will lead to radicalism that triggers the emergence of radical movements among students. Facing the signs of intellectual degradation and the latest curriculum changes, there are several things that need to be followed up. The purpose of this research is to develop comics as an alternative learning media to counter radicalism. The research method used is research and development with qualitative and quantitative approaches. The resulting product is in the form of e-comic as a learning medium to strengthen the profile of Pancasila students. The results show that the development of e-comic as a Civics learning medium on basic norms that apply in social life to realize justice has passed through four stages of development, namely needs analysis, product design, media production, validation and analysis, while for the product revision stage, testing product trial and final analysis and revision is done. The validation and analysis phase includes validation by material experts, media experts and MTs as resource persons. Eligibility of Civics e-comic In KD the norms that apply in social life to realize justice, in terms of material aspects, language, presentation, media effects on learning strategies and overall appearance. The results of the assessments from material experts, media experts and Civics teachers on all measured aspects stated the results of the assessment in the categories of Very Good and Decent.

**Keywords:** Applied Cluster; Development; Local Wisdom

## Introduction

Today, the importance of character is increasingly recognized in efforts to develop a nation's human resources. Various studies and facts show that a developed nation is a nation that has a strong character. These character values are values that are extracted from the characteristics of the local community, not "imitating" the values of other nations which are not necessarily under the characteristics of the nation itself. Japan became a developed nation because of its success in internalizing the bushido spirit which was extracted from the spirit of its ancestors (the samurai). South Korea has become a respected nation in the Asian region, even in the world it has succeeded in exploring its noble

values and China with the spirit of Confucianism, as well as Germany with its Protestant ethics (Usman, 2016). The results of Ramanta & Samsuri (2020), show that the Minangkabau people highly uphold the values of local wisdom, including: Values of heart, consisting of being religious, honest, sincere, and responsible, Values of taste, consisting of tolerance, courtesy, mutual loving, egalitarian and adaptable, Thought values, consisting of critical, intelligent, creative, innovative, visionary, and open-minded, Sports values, consisting of strong, tough, disciplined, independent, capable and brave.

As education develops, the challenges for the government and educators are also getting bigger to protect their students from the infiltration of erroneous teachings or ideas about religious understanding, which in the end will lead to radicalism that triggers the

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emergence of radical movements among students. With the implementation of the Merdeka curriculum starting in the 2022/2023 school year, it will be a big challenge for the world of education to improve student

competence. Based on the results of observations made at MTsN 2 Kota Padang, MTsN Dhamasraya, and MTsN 1 Pekanbaru City, an overview of the data can be obtained in Table 1.

**Table 1.** Results of Interviews with students and teachers

Student characteristics	MTsN 2 Kota Padang	MTsN Dhamasraya	MTsN 1 Kota Pekanbaru
Tribal Background	heterogeneous	Heterogeneous	heterogeneous
Economic level	upper middle	upper middle	upper middle
Attitudes towards radicalism	Reject	Reject	reject
Ability to Collaborate	Need to improve	Need to improve	Need to improve
Interest in learning	Currently	Currently	currently
Non-academic Academic Achievement	Good	Good	Good
Hobbies	Watching, Reading Entertainment,	Watching, Reading, Debate discussions	Discussions and reading
The influence of the Internet on lifestyle	Very influential	Very influential	Very influential

Facing the indications of intellectual degradation and recent curriculum changes, several things need to be followed up. First, it regenerates learning media at every level of institutions that are capable of being an alternative platform for reviving intellectual culture, especially in educational institutions. Second, the role of teachers in utilizing the latest learning media is expected to provide greater space for the younger generation, especially when learning is linked to local wisdom. Students have more knowledge of the positive behavior of the people around them. So it is very much needed communication media that are educative, communicative, and informative but also contain elements of entertainment that attract the pleasures of teenagers and strengthen the profile of Pancasila. Anti-radical comics based on local wisdom can be used as an alternative media to convey messages about Pancasila student profile characters. Local Wisdom (Mekar-Bekal) to Strengthen Pancasila Student Profiles”.

**Method**

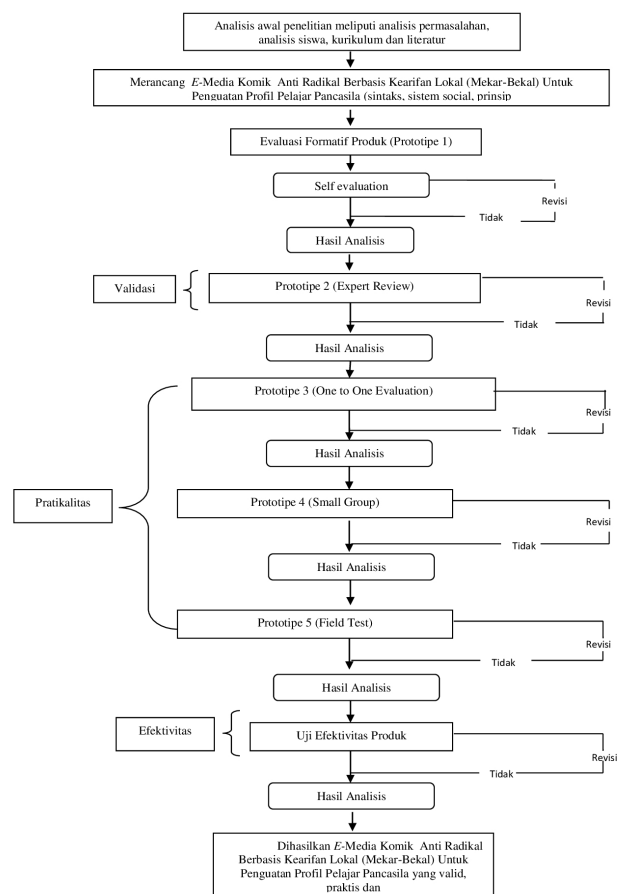
*Type of Research*

The type of research used in this study is a type of RnD (Research and Development) research that can produce certain products in the manufacture of products at the end of the study. Researchers develop or make E-comic learning media products, on the material of the human digestive system for class VIII students. This media development is a procedure of Borg and Gall which has been modified in (Gunawan et al., 2019). The research method of R&D (Research and Development) consists of ten steps but the ones used in this research include Potential and Problems, Information, Product Design, Product Validation, and Product Revision.

*Participants*

Data or information collected by researchers in obtaining data on the results of needs and problems faced by teachers and students, collecting information

using direct or face-to-face interviews conducted by researchers with teachers and students in three different schools, namely, MTsN 2 Padang City, MTsN Darmasraya, MTsN 1 Payakumbuh, MTsN 1 Pekanbaru and MTsN 7 Kerinci Jambi.



**Figure 1.** Research subject selection flow

*Data collection technique*

In this study, researchers collected data using techniques such as.

*Interview Method*

According to Diaz et al. (2023) an interview is a technique for collecting data, by asking questions to interviewed sources or teachers and students. Interviews are one of the techniques in obtaining data that researchers want to obtain to find out the opinions, problems, desires, and other things of the respondents. Interviews can be conducted directly (face to face) and online via WhatsApp by holding questions and answers directly or indirectly with data sources. Data from direct interviews that have been obtained are qualitative data, which researchers will analyze to obtain solutions to the needs needed by teachers and the three students at school.

*Questionnaire Method*

According to Ahmad et al. (2023), the questionnaire is a technique or way of collecting data that is indirectly carried out by researchers with respondents or teachers. Data collection using questionnaires was carried out by researchers to obtain quantitative data on product validation that had been made by researchers. Effective questionnaires are used to get respondents from teachers filling out the questionnaire can be done together in a short time for distribution so that data or information can be obtained more quickly.

*Technique of data analysis*

In research on the development of e-comic learning media using quantitative descriptive data analysis techniques. Testing learning media products will obtain data from the results of filling out questionnaires or questionnaires that have been filled in by Civics teachers (media and material experts), one material expert lecturer, and one media expert lecturer who are tested on a limited scale, which will be sent via soft copy to the validators, in this study using several aspects such as This validation questionnaire uses a research measurement scale that has been modified by Riduwan (2009). In the quantitative analysis using answers that have been given a score according to the Table 2.

**Tabel 2.** (Likert Scale)

Quantitative Analysis	Score
Strongly agree	4
Agree	3
Don't agree	2
Strongly disagree	1

The value data in the table above is given a score of 1 to 4 consisting of strongly agree, agree, disagree, and strongly disagree responses. This scale provides an overview of a very negative position to a very positive position in giving the results of the score from the respondent. In the measurement level of this research

scale using intervals. On this validation questionnaire scale, neutral responses are intentionally omitted so that respondents can indicate their opinions or responses to answers to questions on the questionnaire. The reason is that it avoids errors in the Likert scale method in the medium trend error. According to Kotronoulas et al. (2023) and Rouder et al. (2021), Entering to get the final value of quantitative analysis of questionnaire data, calculating the answers in item points using a formula like.

$$P_s = \frac{S}{N} \times 100\% \tag{1}$$

Information:

$P_s$  = Percentage

$S$  = Total score: (Total score obtained from all respondents)

$N$  = Maximum score: (Highest score from anchor multiplied by the number of respondents)

Furthermore, the feasibility percentage data obtained is then interpreted using interpretation in the qualitative analysis. The following is a table of eligibility criteria based on the rating-scale Table 3.

**Table 3.** Eligibility Criteria

Score	Scale in percent (%)	Eligibility Criteria
1	0-25	Not feasible
2	> 25-50	less worthy
3	> 50-75	Worthy
4	> 75-100	Very Worthy

In the media eligibility criteria in the table above, the product made by the researcher is declared theoretically feasible if the percentage of learning media product feasibility is > 50-75%. Then the results of the values of the four media and material expert validators fall into the percentage score category. E-comic learning media on class VII norm material, media can be used if the results of the assessment from the respondents are at least in the appropriate criteria.

**Result and Discussion**

*Results*

*Needs Analysis*

Needs analysis is carried out to obtain data on problems and needs of teachers and students in learning. The problem data collected will be analyzed by researchers, and then researchers will develop products according to the needs of teachers and students, namely e-comic products as learning media that will be used by teachers and students in Civics subjects related to norms. The collection of needs analysis data used the interview method by providing question points that had been prepared by the researcher to be asked directly to Civics Class VII teachers and sending questions to teachers who were unable to interview directly with the

researcher through a questionnaire which the researcher would later collect again.

These interviews were conducted in four Madrasahs, namely, MTsN 1 Dhamasraya, MTsN 1 Kota Payakumbuh, MTsN 1 Kota Pekanbaru, and MTsN 7 Kerinci Jambi. Of the four madrasahs that the researchers conducted this interview, two madrasahs were in West Sumatra and the other two were in Pekanbaru City, Riau Province, and Kerinci, Jambi Province. In obtaining the initial data, the researcher prepared several questions for the principal, subject teachers, and students. The questions prepared by the researchers for teachers and students consisted of 40 questions related to material problems, radicalism in schools, mastery of using media in delivering PKN learning materials, constraints from teachers and students, learning needs for teachers and students, and students' preferences for comic media. The resulting data from the interviews will become a reference for researchers in developing innovative technology-based learning media to assist teachers' needs in delivering PKN material to students.

Based on the results of the needs analysis of the four Madrasahs conducted by the researcher, the researcher obtained data that the four Madrasahs had a method of delivering material and using learning media as well as patterns of student radicalism in schools that were almost the same in the learning process IT-based learning media had been used by teachers in each Madrasah. although there is still one Madrasah that is constrained in the use of IT-based learning media, however, variations in the use of media and media that are close to students have not been developed in schools.

MTsN 1 Dharmasraya has not been consistent in using learning media, sometimes it is used on other occasions it has not been used, related to the use of information technology-based media at MTsN 1 Dharmasraya is also not consistent due to limited available resources. At MTsN 1 Payakumbuh City the use of conventional and information technology-based media is carried out in turns, but sometimes because of the time, there are Civics teachers who do not use media, however, the use of media in the form of PPT and videos has been around for a long time and has been used for several years.

According to PKN teachers, the level of radicalism in Pekanbaru City 1 MTsN 1 is very low. There are several reasons. The main reason is that students who enter this school are selected students and go through a fairly strict selection process. Regarding the use of media, only variations and updates do not yet exist. So we need new media that are more creative and close to the psychological conditions of students. Not much different from MTsN 1 Pekanbaru City in MTsN 7 Kerinci also provides an overview of radicalism in schools which are quite small and there is an emphasis on child-friendly school activities. However, the

delivery or socialization of anti-radicalism has not been delivered massively and integrated with any subject, related to the use of learning media that is still one-way in conventional and Infocus which does not vary and has interesting creativity for students.

Teachers in four Madrasahs stated that the current learning process is quite difficult in using learning models when teaching students, many GPAs are not conveyed properly and must look at class conditions and students' interests, because during online learning students only listen and read, constrained because not all The syntax can be conveyed well, especially the value of skills and group practicum assignments, constrained by the media and low student motivation because they are not too interested in the existing media. Constraints and difficulties faced by teachers in the learning process using technology-based learning media or IT in four Madrasahs are almost the same, all of the problems have an impact on the lack of student motivation in learning, which makes teachers in four Madrasahs use the same media every time they enter class, plus the media is considered normal and only contains words that are less attractive to students.

Based on the results of interviews that have been conducted in four Madrasahs, it was found that the norm material is quite difficult and does not attract students' interest. Materials that are difficult for students to understand in learning make the level of learning motivation decrease in reading material, students' curiosity decreases, they are less willing to find out related to materials that are difficult to understand, students feel bored and unmotivated because the learning media used is too monotonous and does not vary in the delivery of material. by the teacher, and the impact on student learning completeness decreases.

Regarding the development of learning media in four Madrasahs, four teachers still have not used various learning media and one teacher has so far used them. This happens because the teacher feels that Civics material about norms is quite difficult to apply to students if they use a variety of media. Some teachers also want to use a variety of learning media but are constrained by making varied media besides the high level of difficulty.

From the results of the survey, the analysis of the needs of teachers in four Madrasahs requires innovative and varied learning media in delivering material to students, which can increase students' interest in reading material with a different appearance from previous reading books, visual reading media that attracts students, easily accessible for teachers and students with a small internet quota, do not use a large capacity on mobile phones and can be accessed online and offline.

The need for learning media for teachers and students in online learning activities, especially on norm



material that is difficult for teachers to convey and students to understand, is a reference for researchers to assist teachers in delivering material to students so that normal material in social life can be conveyed properly using media technology-based learning in the form of e-comics, according to the needs of teachers who choose to learn media such as media that students can read instead of just listening to material from videos, reading media that has interesting pictures for students to read.

The results of the data on the needs of students at MTsN in four different madrasas, the researcher obtained supporting data related to the development of e-comics as a learning medium, the supporting data consisted of students' preferences for reading comics during library breaks during face-to-face learning at Madrasas, students were more interested in reading comics because easier and more interesting to read. Constraints for students when learning teachers are many long monotonous explanations and pictures that do not have attractive colors through PowerPoint. This makes students feel bored and lazy to read the material given by the teacher, one of which is the norm material in class VII.

Based on the results of the needs analysis interviews in the four madrasahs that the researchers explained above, the researcher can conclude that they will create learning media by combining visuals with Norma material into storylines that intersect with stories from daily life activities following Norma class VII material. in the form of electronic comics or e-comics such as mango, webtoons that are age-appropriate for students and are more innovative and easy for students to understand.

*Initial Product Description*

The researchers also assisted in making e-comic programmers in finishing colors, and visuals and checking all components of e-comic, so that 70% of e-comic products were made by researchers and 30% by programmers. Norma's e-comic learning media has a capacity of 30 MB for large e-comic files, to open and

read e-comic media requires an additional reader application or Portable Document Format (PDF) application, and the WhatsApp group application and Google Classroom as media dissemination media e-comic is related to the norms that apply in social life to realize justice to be used by teachers and students. In the development of e-comic learning media, researchers began to develop the initial product as follows: Cover, Character introduction, KI/KD Competencies and GPA learning indicators, Chapter or substory, the concept of the e-comic story, giving interaction questions between readers and e-comic, E-comic is also printed in the form of a PDF application.

*Product Validation Results*

The limited-scale trial stage is the stage carried out by the validators or validation in the assessment of learning media products made by researchers, in the validation stage is carried out by experts consisting of media expert lecturers, material expert lecturers, and two Civics Class VII SMP class expert media and materials. The limited-scale trial phase for media and material experts aims to find out which e-comic learning media products that have been made by researchers have the quality and feasibility of the results of the assessment, comments, and suggestions for product improvement to obtain effective results. Validation results:

*Learning Media*

The quality and feasibility of e-comic-based media material, the norms that apply in class VII social life that has been made by researchers, were assessed directly by an educational technology lecturer, Dr. Azrul, M.Pd at Imam Bonjol Padang State Islamic University and assessed by two Civics teachers Sri Rahma Dilla, S.Pd MTs.N 3 Padang and Rahmi Indah Wahyuni S.Pd from MTsN 7 Kerinci Jambi from two different schools. The e-comic learning media is only validated once by a media expert. The results of the validation data on e-comic learning media can be seen in Table 4.

**Table 4.** Language Validation Results

Description of Assessment	Aspects Validator I Media Validator	Validator III Teacher	Validator IV Teacher
Visual	39	31	41
∑ScoreMax	44	44	44
total	39	31	41
Percentage (%)	89	70	93
Eligibility Category	Very Decent	Worthy	Very Decent
Average	84%		
Eligibility Level Categories	Very Decent		

The results of the assessment data on the norms of e-comic learning media that apply in class VII social life from the three media validators can be seen in Table 4. The aspect that is assessed is the aspect of the appearance or visual of the e-comic media in that aspect

there are 10 question points on the media validation sheet. The data from the validation of the learning media that has been processed by the researchers get a percentage of 89% from validator I with the "Very Eligible" category, the results from the teacher validator

get a percentage of 70% in the "Eligible" category and the results of the assessment of the Teacher II validator get a percentage of 93% into the category "Very Worthy".

The average results of the three validators of e-comic learning media material norms that apply in class VII social life get 84% results in the "Very Eligible" category so that e-comic products are very suitable to be used as learning media with the condition that improvements from comments and suggestions the three media validators on the e-comic display color, writing, and frame on the e-comic panel.

*Learning Material Validation Result*

The quality and feasibility of e-comic-based media, the material on norms that apply in class VII social life that has been made by researchers, was assessed directly by a Citizenship Education Lecturer, Dr. Fatmariza M.Hum at Padang State University and assessed by two Civics teachers Eti Yarsi Majid, S.H Guru MTs.N 1 Payakumbuh and Alif Hamzah S.Pd from MTsN 1 Pekanbaru City from two different schools. The results of the data obtained from the validation of material experts can be seen in Table 5.

**Table 5.** Material Validation Data Results

Description of Assessment	Validator II Materials	Validator III Teacher	Validator IV Teacher
Materials	43	31	52
Linguistics	21	40	28
Efficiency	9	9	12
∑ScoreMax	92	92	92
Total	73	80	92
Percentage (%)	79%	87%	100%
Eligibility categories	Very Decent	Very Decent	Very Decent
Average	8		
Eligibility levels categories	Very Decent		

The results of the product evaluation data from the three media experts on the material norms that apply in social life get different percentages, which can be seen in Table 5. Of the 13 questions related to material aspects, 7 questions related to language structure, and 3 questions related to efficiency in the material displayed in comic stories. Validator I got a percentage of 79% which was in the "Very Eligible" category, validator II with a percentage of 87% also entered the "Very Eligible" category and Validator III got a percentage of 90% in the "Very Eligible" category.

The overall average results of the assessment given by the three material experts an average of 89% which is in the "Very Eligible" category, the results obtained show that the material made in the form of an e-comic story concept has the quality and feasibility to be used as a media. learning on norm material in social life, Language Validation Results. The language used in the comics is also analyzed for language feasibility by conducting language validation carried out by the Nahasa validator, obtaining a score of 89, thus this e-comic is linguistically feasible. From the results of language validation obtained data such as Table 6.

**Table 6.** Language Validation Results

Information Aspects	Assessment Validator III	Validator Language III	Validator IV Teacher
Materials	43	31	52
Language efficiency	21	40	28
∑Score Max	9	9	12
total	92	92	92
Percentage (%)	73	80	92
Average	79	87	100
Eligibility level Categories	89		
	Very Decent		

The overall average result of the assessment given by the three material experts gets an average of 89% which is in the "Very Eligible" category, the results obtained show that the language created in the form of an e-comic story concept has the quality and feasibility to be used as a medium learning on the norm material in

people's lives, with conditions for improvement following the suggestions and comments of the material validator. Based on the results of the assessment carried out by four validators on e-comic learning media on the norm material in social life, the criteria are very feasible, it can be seen in Table 7.

**Table 7.** Data recapitulation of the three media, material, and language expert validators

			Results from Validation	
Validator	Expert	Score	Criteria	
Validator I	Media	89	Very Decent	
Validator II	Materials	78	Very Decent	
Validator III	Language	69	Worthy	
Total Score		334		
Rerata= $\sum$ Skor/ $\sum$ validator		83.50	Very Decent	

The validation results from the three experts above, namely media, material, and language experts about comics, can be concluded that with a score of 83.50, the category is very feasible. This is the reference for the continuation of the creation and improvement of comic norms in social life.

*The final product*

In the development of e-comic learning media in Civics class, VII material with the theme of Norms in people's lives that have been made by researchers, the delivery of the material is incorporated into a story, this is intended so that the comic impression is visible in this product, and the impression of a systematic textbook and formal not too visible. This e-comic content consists of one meeting with a discussion regarding the norms that apply in social life. E-comics that have been created and improved according to the suggestions that have been given by the validator and FGD activities based on research results. Suggestions from the comic following the terms of the comic, namely the topic and purpose of the comic direction are appropriate and well conveyed in terms of comic content, drawing, and writing. E-comic has been tested on a limited scale and the assessment has obtained very decent assessment results from four validators with conditions for revision or improvement. The researcher made improvements according to comments and suggestions from the four media and material expert validators.

Comics that have been made in sketches and colored with songs that have a storyline about norms in everyday life that have been well and neatly arranged are then made into e-comics. The process of making e-comics is the final process of importing comics into IT media because the learning process using IT is already in great demand by students. As an overview, the following comic slides are shown below.



**Figure 2.** Cover Page



**Figure 3.** Introduction Page



**Figure 4.** One of the e-Comic Narratives

E-comic that is entered into the website and uses its domain that has been purchased. The results of comics that have been used as e-comics can be viewed on Android and PC. To be able to view and the comics can be accessed using the link <https://mekarbekal.my.id/>.

*Practicality Test Results*

*Praktikality By Students*

The practicality test was carried out in three stages, one-on-one evaluation stage, small group evaluation, and large group evaluation. In the one-on-one evaluation, a total practicality value of 77.53% was obtained with practical criteria. After revisions were made based on suggestions from 3 students with different abilities, then continued with small group evaluations. In the small group evaluation, the average practicality value was 83.80% with very practical criteria, it was seen that there was an increase in practicality results from the one-on-one evaluation.

After revisions were made based on suggestions from a small group consisting of 7 students, then continued with a large group evaluation, namely 30 students in class MTs.N 3 Padang City. The results of the large group practicality are 86.94% with very practical criteria. Seen with suggestions for improvement from each stage and an increase in the value of practicality. The practicality of students in one-on-one evaluation

Data from the results of the student participle test results obtained as shown in the Table 8.

**Table 8.** Student Practicality Test

Practicality Sub Variable	Practical Score	Criteria
Attractiveness	90	Very Practical
Proses of Uses	91	Very Practical
User ease	91	Very Practical
Time	85	Very Practical
Practical Score	89	Very Practical

From the aspect of attractiveness, an average practical value of 90% is obtained with practical criteria. This shows that e-comic attracts students' attention to learn it with the given color variations. In addition, problems with e-comics motivate students to study them because they relate to everyday life. The results of interviews with the three students revealed that e-commerce is interesting to study because the problems are directly related to everyday life. However, there were inputs from 2 students that there should not be too many striking colors. So, in the one-on-one evaluation, it was revised with suggestions for improving the colors used to be more dominant towards neutral colors. From the aspect of the use process, an average practicality value of 91% is obtained with practical criteria. This shows that the use of pictures in e-comic problems helps students understand the meaning of the problem, in other words, e-comics can be used by students.

In addition, the e-comic helps students' creativity in finding concepts and developing their reasoning abilities by filling out the steps in the provided e-comic. From the results of student interviews, they revealed that the existence of an E-comic like this made them interested in solving the problems given, and helped them in learning norms in social life. However, there is input from students, namely, there are commands that they have not understood. After that, the E-comic was revised based on the students' suggestions. From the aspect of ease of use, the average practicality value is 91% with practical criteria. This shows that E-commerce helps students easily find concepts from the material to be studied.

E-commerce also helps students improve their understanding of concepts and reasoning abilities. The results of student interviews revealed that the steps in E-commerce helped them find their concepts so they would remember them for a long time. However, there are inputs from students, namely there are still some sentences that cannot be understood, there are some colors that are too flashy and there are pictures that should not be given. In addition, some writings are less interesting. Then the E-comic was revised based on the students' suggestions. From the aspect of time of use obtained an average practicality value of 85% with practical criteria. This shows that E-commerce can be completed according to the allotted time. From the

results of the interviews, students revealed that they were able to complete the E-comic according to the time of study. Based on the practical results of the one-on-one evaluation, the average total score was 89% with practical criteria.

*Practicality in group evaluation*

The results of small group practicality can be seen in the Table 9.

**Table 9.** Group Partiality

Practicality Sub Variable	Practical Value %	Criteria
Attractiveness	85	Very Practical
Process of Use	86	Very Practical
User Ease	87.50	Very Practical
Time	85	Very Practical
Practical Value	85.80	Very Practical

The attractiveness aspect obtained an average practicality value of 85% with very practical criteria. This shows that there is an increase in practicality after being corrected based on suggestions from one-to-one evaluation. This increase means that on a larger scale, e-comics attract the interest and motivation of students to learn them. This is because, in E-comic, the colors shown are attractive to students, and the problems presented are related to everyday life. It can be concluded that with this problem students are interested and motivated to solve it. This is in line with the results of interviews with students, they revealed that E-comics are very interesting to solve because the problem is directly related to everyday life. However, there is input from students, namely, there is an image at the top of the paper which is the background that should be removed because it has nothing to do with the material. The e-comic was revised based on input from students (Fahreza et al., 2022). From the use process aspect, an average practicality value of 86% is obtained with very practical criteria. This shows an increase in the results of one-to-one evaluation revisions. From the results of practicality, it can be seen that E-commerce helps students find concepts from the material being studied.

From the aspect of ease of use, the average practicality value is 87% with practical criteria. This shows an increase in the practical value after being revised. By improving the one-on-one evaluation suggestions, there are still some less interesting writings. Obtaining E-comic after revision helps students improve their understanding of concepts and reasoning abilities. From the results of student interviews, they revealed that they enjoyed learning by using this E-comic because they found the concept of the problem. As well as the problems those are solved related to everyday life. They also emphasized that this E-comic is interesting and easy to use because every problem to be solved has an image



that helps in understanding the problem (Ramadanti & Bektiningsih, 2023; Reinita et al., 2023).

From the aspect of usage time, the practicality value is 85% with practical criteria. This shows that E-commerce can be completed according to the allotted time. From the results of the interviews, students revealed that they were able to complete the E-comic according to the time of the study. Overall, neglecting the small group, the practicality score was 85.8%, which means that this shows that e-comic is very practical for students to use.

*Practicality by teachers*

The results of the practicality analysis by the teacher obtained results as shown in the Table 10. From the tactical power, the figure obtained was 98%, the process of use was 97%, the ease of use was 98%, the time was 91%, a total of 95% of the practicality value obtained from the teacher's results means that the teacher's use of comic media is very practical.

**Table 10.** Teacher Particularity Test

Practicality Sub Variable	Practical Value %	Criteria
Attractiveness	96	Very Practical
Process of Use	97	Very Practical
User Ease	98	Very Practical
Time	91	Very Practical
Practical Value	95	Very Practical

*Effectiveness Test Results*

The effectiveness of e-comic-based Civics learning media is seen from the learning outcomes of students. Student learning outcomes include cognitive competence learning outcomes, affective competence learning outcomes, and psychomotor competence learning outcomes. Cognitive competence learning outcomes are obtained through a final test at the end of the lesson. The learning outcomes of affective competence were obtained through attitude observation sheets at each meeting. Meanwhile, psychomotor learning outcomes were obtained through skill observation sheets at each meeting.

*Cognitive competency learning outcomes*

Cognitive competency learning outcomes are obtained through quizzes at every meeting and the final test after the norm material in social life is completed. This means that learning that is applied using e-comic learning with normative material in social life is effectively used. In the test of 22 students from KLS VII C MTsN 3 Padang City, the average score of students after learning to use e-comic media was 83.1 and only 3 students did not pass the KKM because the score was below 78, it means that terms of understanding the KLS students' material VII C MTsN 3 Padang City effectively uses e comics in norm material.

On tests of 20 students from Class VII A MTsN 7 Kerinci Jambi Province, which is one of the locations for the e-comic trial, the results obtained that the average student score after learning to use e-comic media was 83.75 and only 2 students did not pass KKM because the score is below 75, it means that in terms of understanding the material, students of Class VII A MTsN 7 Kerinci are effective in using e-comics in normal material. overall this shows that e-comic-based Civics learning media has succeeded in helping students to understand the concept of material norms in social life.

*Affective competence learning outcomes*

Affective learning outcomes are obtained through students' effective observation sheets. Based on the analysis of affective assessment, the average grade was 85 with good criteria (B) at the first meeting, a score of 87 with good criteria (B) at the second meeting, a score of 92 with very good criteria (SB) at the third meeting, and 98 with the criteria very good (SB) at meeting IV. Attitudes assessed during learning activities are spiritual attitudes including praying before and after learning, and social attitudes, namely working together in groups.

From meetings I to IV, there was an increase in the attitude of students which showed that the assessment carried out instilled a better attitude change for students. At the first meeting, there were still many students who had not prayed seriously and had not been active in collaborating, and there were still some who followed the example during the quiz. However, from the next meeting, there was a continuous increase until the fourth meeting. At the fourth meeting, it was seen that the students had obtained a lot of SB scores which showed a change in attitude for the better. With an increased percentage of attitude assessment and the average completeness of students greater than the specified B, it can be concluded that the affective assessment of students has been effectively used.

*Psychomotor competency learning outcomes*

Based on the analysis of the results of the psychomotor assessment on learning activities obtained through the psychomotor observation sheet of students, the class average value was 3.40 with the B+ predicate at meeting I, and the class average value was 3.61 with the A predicate. At meeting II, the class average value was 3.55 with the predicate at meeting III, and the class average value was 3.79 with the predicate A at meeting IV. The skills assessed are providing criticism, suggestions, and questions in discussions and drawing graphs of linear equations and inequalities.

According to Ahmad et al. (2018) and Pratiwi et al. (2018), the assessment of the psychomotor domain can be assessed on learning outcomes in the form of performances or activities during the learning process.

From meeting I to IV there was an increase in students' skills which showed that the assessment carried out instilled changes in skills that were better for students. With the average skill assessment increasing and the average mastery of students being greater than the specified B, it can be concluded that the psychomotor assessment of students has been effectively used. The effectiveness of learning devices is how much learning using the developed devices achieves indicators of learning effectiveness (Haleem et al., 2022; Guo et al., 2020).

### *Discussion*

#### *Learning Media*

According to Fianto et al. (2023) and Weissel & Turnheim (1975), Comics are one of the learning media that can be used in learning activities by teachers when delivering material to students. Learning media using e-comics is very interesting for students because it has pictures and readings, material or readings contained in e-comics are given to students so that students can understand and want to read and the pictures contained in e-comics aim to make it easier for students to understand eating the ones in comics. Reading materials and pictures are put together to make it easier for students to understand the material or reading, digest the contents of the story, increase interest in reading, and finally be able to conclude the contents of the material and stories in the comic.

According to Listianingsih et al. (2021), E-comic learning media can develop students' interest in reading because comics have images that are combined with text, which helps increase students' imagination to make it more interesting to read. E-comic media can improve literacy and can inspire the imagination of students and readers. The e-comic component is unique from books because there are rows of panels, characters, and body movements that can move in 2 or 3 dimensions. The final product of learning media for e-comic norms in social life has been improved and there has been little change from the initial product by researchers according to the comments and validation suggestions of media expert lecturers, material expert lecturers, and linguists and two media and material expert teachers. In this final product, there are several aspects of changes that have been made by researchers such as aspects of the comic display, material aspects, and aspects of writing arrangement in e-comics.

Comments and suggestions from Validator I on learning media, which have been corrected and refined in the form of media information components used in e-comics, both related to openings that are displayed should use animation or electronic-based applications, have also been attempted in this e-comic. The character you want to display should use or reflect local wisdom, which is embedded in the character. An introductory

comic needs to be added, website-based comic access with a responsive web design, and because the material is related to local wisdom a link is needed to find out details via a popup.

Comments and suggestions from validator II regarding the material aspects that have been improved include the results of the study using only one media in expressing the results of the storyline, anti-radicalism in e-comic stories is not visible (anti-radical with local wisdom. What kind of profile of Pancasila students do you want to convey in the storyline of the comic? The local wisdom conveyed in the story should be religious and Islamic. Discuss with the PPKN lecturer who specifically discusses the material to be conveyed in the comic, so that the intent of the storyline is conveyed.

Show examples of norms in social life, for example, moral norms, and customary norms. Such as entering the house should say hello first, and the order of visiting with older people. Explain the division of these norms at the beginning of the story. The introductory sentence is not appropriate. Also, add the norms that guide people to do good. Distinguish between understanding, norms, and values. The learning objectives to be conveyed in the storyline are placed at the beginning. To make it more attractive to students, display more contrasting colors and better designs. The appearance of characters in comics should reflect or display polite clothing.

Validator III's comments and suggestions related to the language of e-comic There is language or words that do not fit in the conversation between say, cati and clever, because in the plot told by the character who is still a child in MTs, polite words should be displayed. In the comic storyline that is presented, include applicable values. Include elements of regional culture, elements of mutual respect, and elements of life problems that problem solves. In the storyline that is shown, the concrete and theoretical form of local wisdom has not been seen. Eligibility of Civics e-comic In KD the norms that apply in social life to realize justice, in terms of material aspects, language, presentation, media effects on learning strategies, and overall appearance. The results of the assessments from material experts, media experts, and Civics teachers on all measured aspects stated the results of the assessment in the categories of "Very Good" and "Decent".

This can be seen from the validation results from the three experts, namely media, material, and language experts about comics, it can be concluded that with a score of 83.5%, it is categorized as very feasible. This is the reference for the continuation of the creation and improvement of comic norms in social life. The practicality test was carried out in three stages, one-on-one evaluation stage, small group evaluation, and large group evaluation. In the one-on-one evaluation, a total practicality value of 77.53% was obtained with practical criteria. After revisions were made based on suggestions

from 3 students with different abilities, then continued with small group evaluations. In the small group evaluation, the average practicality value was 83.80% with very practical criteria, it was seen that there was an increase in practicality results from the one-on-one evaluation.

After revisions were made based on suggestions from a small group consisting of 7 students, then continued with a large group evaluation, namely 30 students in class MTs.N 3 Padang City. The results of the large group practicality are 86.94% with very practical criteria. Seen with suggestions for improvement from each stage and an increase in the value of practicality. Meanwhile, at the test stage, the effectiveness of e-comic-based Civics learning media was seen from the learning outcomes of students. Student learning outcomes include cognitive competency learning outcomes, affective competency learning outcomes, and psychomotor competency learning outcomes. Cognitive competency learning outcomes are obtained through a final test at the end of learning. The results of affective competency learning were obtained through attitude observation sheets at each meeting. Meanwhile, psychomotor learning outcomes were obtained through skill observation sheets at each meeting.

#### *Cognitive competency learning outcomes*

Cognitive competency learning outcomes are obtained through quizzes at every meeting and the final test after the norm material in social life is completed. This means that learning that is applied using e-comic learning with normative material in social life is effectively used. In the test of 22 students from KLS VII C MTsN 3 Padang City, the average score of students after learning to use e-comic media was 83.1 and only 3 students did not pass the KKM because the score was below 78, it means that terms of understanding the KLS students' material VII C MTsN 3 Padang City effectively uses e comics in norm material.

On tests of 20 students from Class VII A MTsN 7 Kerinci Jambi Province, which is one of the locations for the e-comic trial, the results obtained that the average student score after learning to use e-comic media was 83.75 and only 2 students did not pass KKM because the score is below 75, it means that in terms of understanding the material, students of Class VII A MTsN 7 Kerinci are effective in using e-comics in normal material. Overall this shows that e-comic-based Civics learning media has succeeded in helping students to understand the concept of material norms in social life.

#### *Affective competence learning outcomes*

Affective learning outcomes are obtained through students' effective observation sheets. Based on the analysis of affective assessment, the average grade was 85 with good criteria (B) at the first meeting, a score of

87 with good criteria (B) at the second meeting, a score of 92 with very good criteria (SB) at the third meeting, and 98 with the criteria very good (SB) at meeting IV. Attitudes assessed during learning activities are spiritual attitudes including praying before and after learning, and social attitudes, namely working together in groups.

From meetings I to IV, there was an increase in the attitude of students which showed that the assessment carried out instilled a better attitude change for students. At the first meeting, there were still many students who had not prayed seriously and had not been active in collaborating, and there were still some who followed the example during the quiz. However, from the next meeting, there was a continuous increase until the fourth meeting. At the fourth meeting, it was seen that the students had obtained a lot of SB scores which showed a change in attitude for the better. With an increased percentage of attitude assessment and the average completeness of students greater than the specified B, it can be concluded that the affective assessment of students has been effectively used.

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Based on the analysis of the results of the psychomotor assessment on learning activities obtained through the psychomotor observation sheet of students, the class average value was 3.40 with the B+ predicate at meeting I, and the class average value was 3.61 with the A<sub>pa</sub> predicate. At meeting II, the class average value was 3.55 with the predicate A<sub>t</sub> at meeting III, and the class average value was 3.79 with the predicate A<sub>a</sub> at meeting IV. The skills assessed are providing criticism, suggestions, and questions in discussions and drawing graphs of linear equations and inequalities.

According to Sajidan et al. (2022) and Wu et al. (2022), the assessment of the psychomotor domain can be assessed on learning outcomes in the form of performances or activities during the learning process. From meeting I to IV there was an increase in students' skills which showed that the assessment carried out instilled changes in skills that were better for students. With the average skill assessment increasing and the average mastery of students being greater than the specified B, it can be concluded that the psychomotor assessment of students has been effectively used. The effectiveness of learning devices is how much learning using the developed devices achieves indicators of learning effectiveness (Sumayow et al., 2022; Grassini, 2023; Chao, 2019).

#### *Learning Media*

According to Rusmaini (2023) and Anggraeni et al. (2023), Comics are one of the learning media that can be used in learning activities by teachers when delivering material to students. Learning media using e-comics is

very interesting for students because it has pictures and readings, material or readings contained in e-comics are given to students so that students can understand and want to read and the pictures contained in e-comics aim to make it easier for students to understand eating the ones in comics. Reading materials and pictures are put together to make it easier for students to understand the material or reading, digest the contents of the story, increase interest in reading, and finally be able to conclude the contents of the material and stories in the comic.

According to Saputri et al. (2021) and Umairoh & Amaliyah (2022), E-comic learning media can develop students' interest in reading because comics have images that are combined with text, which helps increase students' imagination to make it more interesting to read. E-comic media can improve literacy and can inspire the imagination of students and readers. The e-comic component is unique from books because there are rows of panels, characters, and body movements that can move in 2 or 3 dimensions. The final product of learning media for e-comic norms in social life has been improved and there has been little change from the initial product by researchers according to the comments and validation suggestions of media expert lecturers, material expert lecturers, and linguists and two media and material expert teachers. In this final product, there are several aspects of changes that have been made by researchers such as aspects of the comic display, material aspects, and aspects of writing arrangement in e-comics.

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with older people. Explain the division of these norms at the beginning of the story. The introductory sentence is not appropriate. Also, add the norms that guide people to do good. Distinguish between understanding, norms, and values. The learning objectives to be conveyed in the storyline are placed at the beginning. To make it more attractive to students, display more contrasting colors and better designs. The appearance of characters in comics should reflect or display polite clothing.

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This can be seen from the validation results from the three experts, namely media, material, and language experts about comics, it can be concluded that with a score of 83.5%, it is categorized as very feasible. This is the reference for the continuation of the creation and improvement of comic norms in social life. The practicality test was carried out in three stages, one-on-one evaluation stage, small group evaluation, and large group evaluation (Wang & Tahir, 2020). In the one-on-one evaluation, a total practicality value of 77.53% was obtained with practical criteria. After revisions were made based on suggestions from 3 students with different abilities, then continued with small group evaluations. In the small group evaluation, the average practicality value was 83.80% with very practical criteria, it was seen that there was an increase in practicality results from the one-on-one evaluation.

After revisions were made based on suggestions from a small group consisting of 7 students, then continued with a large group evaluation, namely 30 students in class MTs.N3 Padang City. The results of the large group practicality are 86.94% with very practical criteria. Seen with suggestions for improvement from each stage and an increase in the value of practicality. Meanwhile, at the test stage, the effectiveness of e-comic-based Civics learning media was seen from the learning outcomes of students. Student learning outcomes include cognitive competency learning outcomes, affective competency learning outcomes, and



psychomotor competency learning outcomes. Cognitive competency learning outcomes are obtained through a final test at the end of learning. The results of affective competency learning were obtained through attitude observation sheets at each meeting. Meanwhile, psychomotor learning outcomes were obtained through skill observation sheets at each meeting.

#### *Cognitive Competency Learning Outcomes*

Cognitive competency learning outcomes are obtained through quizzes at each meeting and a final test after the norm material in social life is finished. This means that learning that is applied using e-comic learning with material norms in social life is effectively used. On tests of 22 students from KLS VII C MTsN 3 Padang City, the average student score after learning to use e-comic media was 83.1 and only 3 students did not pass the KKM because the score was below 78, which means that in terms of students' understanding of the KLS material VII C MTsN 3 Padang City is effective in using e-comics on normal material.

In the test of 20 students from Class VII A MTsN 7 Kerinci Jambi Province, which became one of the locations where the e-comic results were tested, the average value of students after learning to use e-comic media was 83.75 and only 2 students did not pass. KKM because the score is below 75, meaning that in understanding the material for Class VII A MTsN 7 Kerinci students effectively use e-comic on norm material. Overall this shows that e-comic-based Civics learning media has succeeded in helping students to understand the concept of material norms in social life.

#### *Affective Competency Learning Outcomes*

Affective learning outcomes are obtained through students' effective observation sheets. Based on the analysis of affective assessment, the average grade was 85 with good criteria (B) at the first meeting, a score of 87 with good criteria (B) at the second meeting, a score of 92 with very good criteria (SB) at the third meeting, and 98 with the criteria very good (SB) at meeting IV. Attitudes assessed during learning activities are spiritual attitudes including praying before and after learning, and social attitudes, namely working together in groups.

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percentage of attitude assessment and the average completeness of students greater than the specified B, it can be concluded that the affective assessment of students has been effectively used.

#### *Psychomotor Competency Learning Results*

Based on the analysis of the results of the psychomotor assessment on learning activities obtained through the psychomotor observation sheet of students, the class average value was 3.40 with the B+ predicate at meeting I, and the class average value was 3.61 with the A predicate. At meeting II, the class average value was 3.55 with the predicate At meeting III, and the class average value was 3.79 with the predicate A at meeting IV. The skills assessed are providing criticism, suggestions, and questions in discussions and drawing graphs of linear equations and inequalities.

According to Payu (2023) and Sartika & Shofiyah (2020); the assessment of the psychomotor domain can be assessed on learning outcomes in the form of performances or activities during the learning process. From meeting I to IV there was an increase in students' skills which showed that the assessment carried out instilled changes in skills that were better for students. With the average skill assessment increasing and the average mastery of students being greater than what was set, it can be concluded that the psychomotor assessment of students has been effectively used. The effectiveness of learning devices is how much learning using the developed devices achieves indicators of learning effectiveness (Ferdianto et al., 2019).

Based on the results of the validity, practicality, and effectiveness assessments, it can be concluded that the development of e-comics to strengthen the profile of Pancasila students can be categorized as very good, feasible, and can be used as a learning medium.

## **Conclusion**

Based on data analysis and discussion, it can be concluded that the development of e-comics as a learning media for Civics in Basic Competence the norms that apply in social life to realize justice have gone through four stages of development, namely needs analysis, product design, media production, validation and analysis, while for the product revision stage, product trials as well as analysis and final revision have been completed. The validation and analysis phase includes validation by material experts, media experts, and MTs who are the resource persons. Eligibility of Civics e-comic In KD the norms that apply in social life to realize justice, in terms of material aspects, language, presentation, media effects on learning strategies, and overall appearance. The results of the assessments from material experts, media experts, and Civics teachers on

all measured aspects stated the results of the assessment in the categories of "Very Good" and "Decent".

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#### Author Contributions

Conceptualization; Z., S. M., S. F., I. Y., S. O.; methodology; Z.; validation; S. M.; formal analysis.; S. F. F. investigation.; I. Y.; resources; S. O. data curation: writing—original; S. M, draft preparation; Z., writing—review and editing; S. F; Visualization; I. Y. All authors have read and agreed to the published version of the manuscript.

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#### Conflicts of Interest

The author declares that there is no conflict of interest in the research and publication of this research.

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