# Balinese Culture-Based Digital Comic Learning Media for Strengthening Pancasila Student Profiles for Elementary School Students

## Komang Putri Cahyani Putri[1*], I Made Suarjana[2], Gede Wira Bayu[3] (iD)

[1,2,3] Primary School Teacher Education, Ganesha Education University, Singaraja, Indonesia

**A R T I C L E   I N F O**
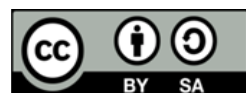
*A B S T R A K*

*Permasalahan yang ada saat ini adalah menurunnya karakter siswa dan media pembelajaran yang belum menerapkan budaya Bali. Penelitian ini bertujuan untuk mengembangkan media komik digital berbasis budaya Bali untuk memperkuat Profil Siswa Pancasila siswa kelas IV SD. Penelitian ini menggunakan model pengembangan ADDIE. Metode yang digunakan adalah kuesioner. Subyek penelitiannya adalah media komik digital berbasis budaya Bali, sedangkan objek penelitiannya adalah desain, validitas media yang dikembangkan, respon guru dan respon siswa terhadap media komik digital. Teknik analisis data yang digunakan adalah analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian adalah desain terdiri dari sampul komik, pembuka komik, isi komik, sampul komik, dan dalam bentuk file PDF. Validitas media pembelajaran komik digital dinyatakan valid dan sesuai berdasarkan persentase ahli isi materi 98%, ahli media 95%, dan ahli desain 98% (sangat baik). Respon guru kelas IV SD berdasarkan uji praktik memperoleh persentase 100% (sangat baik) sehingga layak digunakan dalam kegiatan pembelajaran. Respon siswa berdasarkan uji coba individu diperoleh persentase sebesar 98,7% dan uji kelompok kecil 97,7% (sangat baik). Disimpulkan bahwa media komik digital berbasis budaya Bali layak digunakan dalam pembelajaran. 7% dan uji coba kelompok kecil 97,7% (sangat baik). Disimpulkan bahwa media komik digital berbasis budaya Bali layak digunakan dalam pembelajaran. 7% dan uji coba kelompok kecil 97,7% (sangat baik). Disimpulkan bahwa media komik digital berbasis budaya Bali layak digunakan dalam pembelajaran.*

**A B S T R A C T**

The current problem is the decline in student character and learning media that does not yet apply Balinese culture. This research aims to develop digital comic media based on Balinese culture to strengthen the Pancasila Student Profile of grade IV elementary school students. This research uses the ADDIE development model. The method used is a questionnaire. The research subject is digital comic media based on Balinese culture, while the research object is the design, validity of the media developed, teacher responses and student responses to digital comic media. The data analysis technique used is qualitative and quantitative descriptive analysis. The results of the research are that the design consists of a comic cover, comic opening, comic content, comic cover, and in the form of a PDF file. The validity of digital comic learning media was declared valid and appropriate based on the percentage of material content experts 98%, media experts 95%, and design experts 98% (very good). The fourth grade elementary school teacher's response based on practitioner tests obtained a percentage of 100% (very good) so it is suitable for use in learning activities. Student responses based on individual trials obtained a percentage of 98.7% and small group trials 97.7% (very good). It was concluded that digital comic media based on Balinese culture is suitable for use in learning. 7% and small group trials 97.7% (very good). It was concluded that digital comic media based on Balinese culture is suitable for use in learning. 7% and small group trials 97.7% (very good). It was concluded that digital comic media based on Balinese culture is suitable for use in learning.

Corresponding author
*E-mail addresses: putricahyanigeg@gmail.com (Komang Putri Cahyani Putri)

## 1. INTRODUCTION

Education is a process of change and behavior through learning and training activities(Hulukati & Rahmi, 2020; Sari et al., 2022). The aim of changing the curriculum is to improve the quality of education for the next generation so that it is in line with current developments. The Independent Curriculum is a refinement of the 2013 Curriculum which is an option for schools that are ready to implement it in 2022-2024 learning and for schools that are not ready to implement the Independent Curriculum, they are given another option, namely continuing to implement the 2013 Curriculum or continuing the Emergency Curriculum until an evaluation of the recovery curriculum is carried out. learning in 2024(Rahmadayanti & Hartoyo, 2022). The thing that is emphasized in the Independent Curriculum is quality learning in order to create students with quality Pancasila Student Profile character and competence as human resources who are able to face global challenges.(Mabsutsah & Yushardi, 2022; Miftakhuddin et al., 2022). Technology is developing rapidly, changes in the living environment, differences that will occur in the world of work in the future in the field of education and culture, as well as socio-cultural shifts are behind the emergence of the Pancasila Student Profile.(Kahfi, 2022; Wanti et al., 2019). 6 dimensions of Pancasila Student Profile character, namely faith, devotion to God Almighty and noble character; global diversity; worked together; independent; critical reasoning; and creative(Hidayati et al., 2022; Kahfi, 2022; Kurniawaty et al., 2022).

The increasingly advanced development of technology is proven by the Industrial Revolution 4.0 which encourages the use of technology in various fields, one of which is education. Therefore, in the world of education, 21st century learning is being implemented which is marked by the development of digital information. 21st century learning must be able to prepare generations of people in Indonesia to follow the flow of information and communication technology which is increasingly advanced and developing in society(Nugraha & Octavianah, 2020; Somantri, 2021; Syahputra, 2018). The use of technology in learning can help teachers activate students, so teachers are required to be creative in using technology to apply it in learning media. Learning media is anything that is physical or technical as an intermediary from teacher to student in facilitating the delivery of teaching material(Astutik et al., 2021;Adam & Syastra, 2015).Learning media has the benefits of unifying teaching materials, making the learning process interesting, learning activities more interactive, saving time and energy, improving student learning outcomes, making teachers more productive, and allowing learning activities without being limited by space and time.(Karo-Karo & Rohani, 2018). Conditions at SD Negeri 2 Ambengan show that there is an implementation of the Merdeka Curriculum at grade IV level which emphasizes the character of the Pancasila Student Profile. There is a decline in student character due to previous learning carried out via WhatsApp Group during the Covid-19 pandemic.learning media that applies technology is only in the form of PowerPoint media and learning videos and Balinese culture has not been applied in learning media.

The solution offered to introduce the character of the Pancasila student profile to students is by using learning media. Learning media that utilizes technology are digital comics. Comic media is a visual media that is popular with children because it can create a desire to read in children(Nuraeni & Habibi, 2021; Parera, 2021; Rosyida, 2019). Digital comics are comics that are published digitally, contain images arranged in several parts, have a synchronized reading path, have frames, have word balloons, and have a writing style that communicates the meaning of the images.(Lestari & Irwansyah, 2020; Rohmanurmeta & Dewi, 2019). The application of digital comics as a learning medium can increase learning effectiveness and student enthusiasm(Hidayah et al., 2017; Riwanto & Wulandari, 2018).Children generally enjoy reading comics, comics that contain real depictions of stories accompanied by illustrations and supporting dialogue, comics that are easy to use, and comics that can be read anywhere and at any time are considerations for choosing comic media in learning.(Kanti et al., 2018; Elly Sukmanasa & Windiyani, 2017). In line with the use of digital comics as a learning medium, cultural diversity can be used in digital comics. The word culture comes from the word buddhayah which is Sanskrit. Buddhayah is the plural form of buddhi (mind or reason) which means everything that is related to human reason and reason.(Suweta, 2020). The elements of culture consist of 7 universal elements, namely language, technological systems, livelihood systems, social organizations, knowledge systems, religion and art.(Pitriani et al., 2013).The diversity of Balinese culture can be applied in digital comics, including Balinese folklore, traditional Balinese clothing, typical Balinese names, and typical Balinese buildings. However, the diversity of Balinese culture in digital comic learning media has not been implemented in strengthening the Pancasila Student Profile in elementary schools. Research that applies Balinese culture is utilizing Balinese culture in the form of Balinese folklore as a science learning tool(Riastini et al., 2020)and research that utilizes Balinese culture in the development of kolok (deaf mute) friendly teaching material media on social studies learning outcomes and attitudes of love for Balinese culture(Widiana et al., 2019). Both studies show that the product developed has high validity.

Previous research findings reveal that the digital comics developed are suitable for use in learning(Supartayasa & Wibawa, 2022; Sedana Putra & Semara Putra, 2021). The digital comics based on Indonesian hero characters that have been developed can be used as learning media(Wijaya et al., 2020).Apart from that, other research findings reveal that comics can be used as an alternative medium to convey the message of the Pancasila Student Profile characters, presenting comics in digital form can make it easier for students to understand the values of the Pancasila Student Profile characters. (Ngazizah & Laititia, 2022).Other research findings also reveal that digital comics can be used as a medium to strengthen the character of fourth grade elementary school students(Astutik et al., 2021). The advantage of the digital comic learning media that will be developed is that it presents digital animation elements with the diversity of Balinese culture and storylines containing the Pancasila Student Profile. Based on this, the aim of this research is to determine the design, validity, teacher response and student response to digital comic media based on Balinese culture towards strengthening the Pancasila Student Profile for grade IV elementary school students. The novelty of this research is that in accordance with the Merdeka Curriculum, it contains the character values of the Pancasila Student Profile which are conveyed through a Balinese folk tale entitled "I Durma" as a story in a comic. It is hoped that this digital comic can help teachers and students in strengthening the character of the Pancasila student profile.

## 2. METHOD

This type of research is development that applies the ADDIE development model. This model consists of 5 stages, namely the analysis stage (Analyze), the design stage (Design), the development stage (Development), the implementation stage (Implementation), and the evaluation stage (Evaluation).(Hidayat & Nizar, 2021). The subjects of this research were 2 learning material content experts, 2 learning design experts, and 2 learning media experts. The test subjects were 1 class IV teacher and 12 class IV students. The method used for data collection is a questionnaire method in the form of a list of questions to respondents. The instrument for collecting data is a questionnaire. The instrument grid is presented inTable 1, Table 2, Table 3, Table 4 and Table 5.

**Table1.** Expert Instrument Grid Learning Material Content

| No | Aspect | Indicator |
|---|---|---|
| 1 | Material | 1) Complete digital comic identity on the cover |
| | | 2) Suitability of digital comics to the material |
| | | 3) The material presented is easy to understand |
| | | 4) Suitability of material to student characteristics |
| | | 5) The connection of material with everyday life |
| 2 | Grammar | 6) Conformity of language with Indonesian rules. |
| | | 7) Clarity in the use of punctuation and symbols |
| | | 8) Clarity of sentence usage |
| 3 | Presentation | 9) Integration of material with story in digital comics |
| | | 10) Comics are presented based on Balinese culture |

**Table2**. Learning Design Expert Instrument Grid

| No | Aspect | Indicator |
|---|---|---|
| 1 | Objective | 1) Learning objectives are in accordance with strengthening the Pancasila Student Profile |
| 2 | Strategy | 2) There are clear instructions for using digital comic media |
| | | 3) There is an introduction to digital comic story characters |
| | | 4) The material presented is based on Balinese culture |
| | | 5) Delivery of material according to student characteristics |
| | | 6) Delivery of material is easy to understand |
| | | 7) Delivery of material can strengthen the Pancasila Student Profile in everyday life |
| 3 | Evaluation | 8) There is an evaluation question |
| | | 9) Clarity of instructions for working on evaluation questions |
| | | 10) Evaluation questions provide reinforcement of the 6 dimensions of the Pancasila Student Profile |

**Table3.** Learning Media Expert Instrument Grid

| No | Aspect | Indicator |
|---|---|---|
| 1 | Technical | 1) Ease of use of digital comic media |
| | | 2) Media can be read repeatedly |
| 2 | Appearance | 3) Use of typeface |
| | | 4) Appropriate use of font size |
| | | 5) Text readability |
| | | 6) The color combinations in digital comics are interesting |
| | | 7) The attractiveness of digital comic displays |
| | | 8) The suitability and attractiveness of image illustrations in digital comics |
| | | 9) The language used is easy to understand |
| | | 10) Clarity of story line |

**Table 4.** Practitioner Trial Instrument Grid

| No | Aspect | Indicator |
|---|---|---|
| 1 | Material | 1) Suitability of digital comic stories with the Pancasila Student Profile |
| | | 2) The relationship between the content of digital comic stories and the values of the Pancasila Student Profile |
| | | 3) The accuracy of the content of comic stories in strengthening the Pancasila Student Profile |
| 2 | Presentation of Material | 4) Clarity of story line |
| | | 5) Presentation of character images |
| | | 6) Digital comic support for student involvement in strengthening the Pancasila Student Profile |
| 3 | Grammar | 7) The use of language in digital comics is in accordance with student characteristics |
| | | 8) Conformity of language with Indonesian rules |
| | | 9) Ease of understanding the flow of material using language |
| 4 | Appearance | 10) The attractiveness of the digital comic cover page design |
| | | 11) Appropriate selection of type and size of letters |
| | | 12) Color combination |
| 5 | Media Presentation | 13) The attractiveness of the character designs |
| | | 14) Appropriateness of panel presentation |
| | | 15) The complexity of presenting digital comics |
| 6 | Visual | 16) Suitability of digital comic illustrations to student characteristics |
| | | 17) Layout suitability |
| | | 18) Integration of panels, word balloons, characters and illustrations |

**Table 5.** Instrument Grid for Individual Trials and Small Group Trials

| No | Aspect | Indicator |
|---|---|---|
| 1 | Appearance | 1) Comic appeal |
| | | 2) Text readability |
| | | 3) Image clarity |
| | | 4) Attractive color |
| 2 | Technical | 5) Ease of use of digital comics |
| | | 6) Digital comics can be read repeatedly |
| 3 | Material | 7) The material in digital comic stories is easy to understand |
| | | 8) Suitability of material to everyday life |
| | | 9) Usefulness of the material |
| 4 | Evaluation | 10) Given evaluation questions |

The research instrument was validated by 2 judges so that it was found that the content validity of the research instrument was valid or suitable for use. The analysis techniques used are qualitative

descriptive analysis techniques and quantitative descriptive analysis techniques. Qualitative descriptive analysis is data processing by making a systematic arrangement in the form of words or sentences so that general conclusions are obtained, while quantitative descriptive analysis is data processing arranged in the form of numbers and/or percentages about the object under study in order to obtain general conclusions. The scores obtained are then adjusted to the 5 scale achievement level conversion provisions to provide meaning and decision making(Tegeh et al., 2014).

## 3. RESULT AND DISCUSSION

**Result**

This research develops digital comic learning media based on Balinese culture to strengthen the Pancasila Student Profile for fourth grade elementary school students using the ADDIE development model. The design for digital comic media based on Balinese culture is based on the Balinese folklore entitled "I Durma" and is in the form of a PDF file.The ADDIE model is a dynamic and interactive learning design that can be used as a guide in device development(Nurjanah & Rahayu, 2022).The ADDIE model research procedure includes the analysis stage, design stage, development stage, implementation stage and evaluation stage(Purnamasari, 2020). At the analysis stage (Analyze) it was carried out using observation and interview methods so that it was found that the conditions in the field implemented the Independent Curriculum which emphasized the character of the Pancasila Student Profile at grade IV level,there was a decline in student character due to previous learning carried out via WhatsApp Group during the Covid-19 pandemic,learning media that applies technology is only in the form of PowerPoint media and learning videos and Balinese culture has not been applied in learning media.Comics can be used as an alternative medium to convey the message of the Pancasila Student Profile character. Presenting comics in digital form can make it easier for students to understand the character values of the Pancasila Student Profile(Ngazizah & Laititia, 2022).

At the design stage, digital comic designs are created, media elements are collected which include appropriate images, fonts and colors. Digital comic learning media is designed with story lines, character images, and settings that are appropriate to Balinese culture. The elements of Balinese culture used are the storyline of the Balinese folk tale entitled I Durma, typical Balinese buildings, traditional Balinese clothing, and Balinese names. The color selection is adjusted to bright colors, so it has an attractive appearance. The typeface uses a font that is easy to read and the language used is simple so that it is easy for students to understand. One element of learning media that needs to be considered is simplicity, namely using simple fonts that are easy to read and using concise sentences so that they are understood.(Pebrianti, 2019). The design stage steps taken are creating a story synopsis, synopsis illustration, creating a storyline, creating verbal and visual characters, preparing a storyboard, coloring with a tablet gadget using the Medibang Paint application, creating text balloons and their contents, creating a cover, comic book layout. , and finishing (Kustandi & Darmawan, 2020). At the development stage, the product is made according to the design that has been made. The development stage includes product editing, product preparation, and creating questionnaires. Digital comics which were previously still in the form of JPG image files were combined into PDF filescanaccessed repeatedly and long-lastingly without worrying about the comics getting damaged quickly(Nurrita, 2018). The parts of a digital comic consist of the comic cover, comic opening, comic content, and comic cover. The product input is (1) Use of font type and size, (2) learning objectives, (3) and the name of the supervisor on the closing page. The results of the revision are presented inFigure 1.
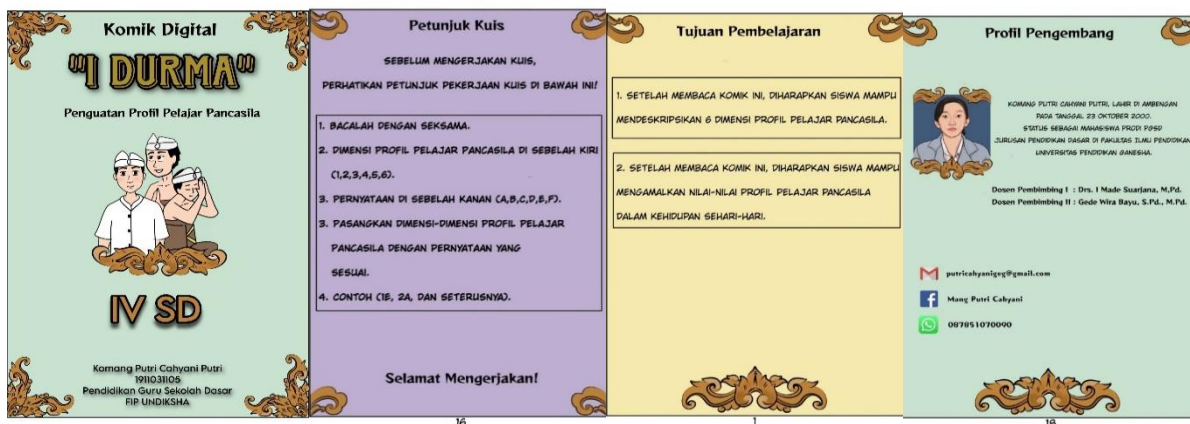


**Picture1.** Digital Comic Revision Results

The validity of digital comic learning media is obtained from (1) expert testing of learning material content, (2) expert testing of learning media, and (3) expert testing of learning design. The results of the data analysis are presented sequentially according to the results obtained at each stage which can be seen in Table 6.

**Table 6.** Percentage of Validity of Development of Digital Comic Learning Media Based on Balinese Culture

| No | Test Subjects | Validity Results | Percentage Qualification |
|---|---|---|---|
| 1. | Test the Content of Learning Material | 98% | Very good |
| 2. | Test Learning Media | 95% | Very good |
| 3. | Test Learning Design | 98% | Very good |

Data on teacher responses to digital comic learning media based on Balinese culture was obtained from practitioner tests. The results of data analysis obtained a percentage of 90% so that the percentage qualification was very good. Data on student responses to digital comic learning media based on Balinese culture were obtained from individual trials and small group trials. The results of this data analysis can be seen in Table 7 And Table 8.

**Table 7.** Individual Trial Results

| No | Test Subjects | Percentage | Percentage Qualification |
|---|---|---|---|
| 1. | 1 | 100% | Very good |
| 2. | 2 | 98% | Very good |
| 3. | 3 | 98% | Very good |
| | Ideal Maximum Score | 50 | |
| | Total Percentage | 296 | |
| | Average Percentage | 98.7% | Very good |

**Table 8.** Results of Small Group Trials

| No | Test Subjects | Percentage | Percentage Qualification |
|---|---|---|---|
| 1. | 1 | 100% | Very good |
| 2. | 2 | 96% | Very good |
| 3. | 3 | 94% | Very good |
| | Ideal Maximum Score | 50 | |
| | Total Percentage | 290 | |
| | Average Percentage | 96.7% | Very good |

**Discussion**

The design for digital comic media based on Balinese culture is based on the Balinese folklore entitled "I Durma" and is in the form of a PDF file. The digital comic sections consist of comic cover, comic opening (learning objectives, instructions for using the comic, and character introduction), comic content (opening story page, comic story, story closing page, Pancasila Student Profile material, quiz opening page, quiz instructions , and quiz content), and a comic cover (developer profile). The assessment from the material content expert was declared valid. This achievement is in accordance with aspects which include material aspects, namely the identity of the digital comic on the cover is complete, the digital comic is in accordance with the material, the material presented is easy to understand, the material is in accordance with student characteristics, and the material is related to everyday life. The grammatical aspect is that the language used is in accordance with Indonesian rules, the use of punctuation and symbols is clear, and the sentences used are clear(Sukmanasa et al., 2017; Widana et al., 2018). From the presentation aspect, the digital comic material and stories have been integrated and the comics are presented based on Balinese culture. The assessment from learning media experts is said to be valid. This is because it is in accordance with the technical aspects, namely digital comics are easy to use and can be read repeatedly, as well as from the appearance aspect, namely appropriate typeface, appropriate font size, readable text, attractive color combinations in digital comics, attractive appearance, illustrations the images are

appropriate and attractive, the language is easy to understand, and the storyline is clear(Hidayah et al., 2017; Rohmanurmeta & Dewi, 2019). The assessment from the learning design expert was declared valid. This is because it is in accordance with the objective aspect, namely the learning objectives in accordance with the Pancasila Student Profile. The strategy aspect is that there are clear instructions for using digital comics, there is an introduction to the characters, the material delivered is based on Balinese culture, the material is in accordance with student characteristics, the material is easy to understand, and the material can provide reinforcement of the Pancasila Student Profile in everyday life(Kanti et al., 2018; Sukmanasa et al., 2017). In the evaluation aspect, evaluation questions have been given, clear instructions for working on the questions and evaluation questions have also strengthened the Pancasila Student Profile. Based on the expert's assessment, it was concluded that digital comic media had very good qualifications so that it was valid and suitable for use in learning. The role of comics as a learning medium is that they can be used as an alternative in conveying messages(Azizul et al., 2020; Ngazizah & Laititia, 2022; Wahyudin et al., 2020).

The teacher's response to digital comic media was obtained based on trials from practitioners with very good qualifications, because it is in accordance with the material aspects, namely the story in the digital comic is in accordance with the Pancasila Student Profile, the content of the story is related to the values of the Pancasila Student Profile, and the content of the story has provided strengthening of the Profile. Pancasila students. Aspects of material presentation, namely the digital comic storyline is clear, the character images are presented clearly, and the digital comic supports student involvement in strengthening the Pancasila Student Profile. The grammatical aspect, namely the use of language in digital comics according to student characteristics, digital comics use language according to Indonesian rules, and the flow of the material is easy to understand. The appearance aspect is that the digital comic cover is attractive, the type and size of the letters are appropriate,(Handayani, 2021; Pinatih et al., 2021). Then in the visual aspect, namely the digital comic illustrations are in accordance with the characteristics of the students, the layout and integration between panels, word balloons, characters and illustrations are appropriate. Based on the results of the teacher's response, digital comic media is suitable for use in learning. Digital comics can be used as a learning medium because they have the advantage of being a medium for increasing vocabulary and developing interest in reading(Azizul et al., 2020; Megantari et al., 2021; Ngazizah & Laititia, 2022; Wahyudin et al., 2020). Apart from that, digital comics can be read anytime and anywhere because they are published digitally, are easy for teachers and students to use, generate interest and innovation in student learning, and help students understand abstract concepts.(Sukmanasa & Windiyani, 2017;Kustianingsari & Dewi, 2021;Syahmi et al., 2022;Eva et al., 2020;Syarah, 2022).

In the individual test the qualifications were very good and in the small group trial the qualifications were very good, because it was in accordance with the display aspect, namely digital comics based on Balinese culture that were presented attractively, the text could be read easily, the images were clearly visible, and the colors used interesting. The technical aspect is that digital comics are easy to use and can be read repeatedly. The material aspect is that the material contained in digital comics is easy to understand, appropriate to everyday life and useful, as well as the evaluation aspect, namely that evaluation questions have been given. Based on these results, digital comic learning media based on Balinese culture is suitable for use in learning activities. Introduction to culture can be done from an early age in various ways, one of which is through education in elementary school(Aditya Dharma, 2019; Hanifa et al., 2021).Digital comics help foster interest in reading, so students can understand the values of the characters conveyed in comics (Fathoni et al., 2016; Suwarti et al., 2020). Apart from that, one of the reasons children read comics is because comics can be used as a medium for character learning(Suwarti et al., 2020).

The implication of this development research is that digital comics based on Balinese culture that have been developed can be used by teachers in learning in fourth grade elementary school as a medium for strengthening the Pancasila Student Profile, students can understand the values of the Pancasila Student Profile in a fun way while getting to know Balinese culture, and for Researchers can find out the design of digital comics, the validity of digital comics, teacher responses and student responses to the digital comic media that has been developed. The limitation of this development is that the development of digital comic media only extends to validity testing and limited trials. However, digital comic media can still be used because it meets the standard validity criteria so it is valid and suitable for use. It is hoped that teachers will use digital comic media in learning to strengthen the Pancasila Student Profile for fourth grade elementary school students. Other researchers are expected to continue development research in accordance with the ADDIE stage.

## 4. CONCLUSION

The validity of digital comic learning media based on Balinese culture in strengthening the Pancasila Student Profile for grade IV elementary school students has received very good qualifications. The response from teachers and students who received very good qualifications. Based on this, it is concluded that digital comic learning media based on Balinese culture is suitable for use in learning. Digital comic learning media based on Balinese culture can make it easier for students to learn and increase students' enthusiasm for learning.

## 5. REFERENCES

Adam, S., & Syastra, MT (2015). Utilization of Information Technology-Based Learning Media for Class X Students of Ananda Batam High School. CBIS Journal, 3(2), 1–13.

Aditya Dharma, IM (2019). Development of Illustrated Children's Story Books with the Insertion of Local Balinese Culture on Reading Interest and Attitudes of Class V Elementary School Students in the 2013 Curriculum. Journal for Lesson and Learning Studies, 2(1), 53–63. https://doi.org/10.23887/jlls.v2i1.17321.

Astutik, AF, Rusijono, & Suprijono, A. (2021). Development of Digital Comic Media in Social Studies Learning to Strengthen the Character of Class V Students at SDN Geluran 1 Taman. Journal of Education and development, South Tapanuli Education Institute, 9(3), 543–554. https://doi.org/10.37081/ed.v9i3.2894.

Azizul, A., Riski, WY, Fitriyani, DI, & Sari, IN (2020). Development of Digital Comic Teaching Materials on Motion Mater. Vox Edokasi: Scientific Journal of Educational Sciences, 11(2). https://doi.org/10.31932/ve.v11i2.829.

Eva, RPVB, Sumantri, MS, & Winarsih, M. (2020). 21st Century Learning Media: Digital Comics for Elementary School Students. Proceedings of Basic Education Seminar and Discussion, 3.

Fathoni, K., Setiowati, Y., & WS, LP (2016). Design and Development of a Digital Comic Application for Shadow Puppet Stories as an Android-Based Javanese Culture Learning Media. SCAN-Journal of Information and Communication Technology, XI, 51–58.

Handayani, T. (2021). Development of STEM-Based Digital Comic Media to Improve Elementary School Students' Scientific Literacy. Journal of Elementary Education Didactics, 5(3), 737–756. https://doi.org/10.26811/didaktika.v5i3.343.

Hanifa, M., Lidinillah, DAM, & Mulyadiprana, A. (2021). Designing a Comic Book Based on Local Culture for Grade IV Elementary School Students. PEDADIDACTICS: Scientific Journal of Primary School Teacher Education, 8(4), 965–976. https://doi.org/10.17509/pedadidaktika.v8i4.41877.

Hidayah, YF, Siswandari, S., & Sudiyanto, S. (2017). Development of Digital Accounting Comic Media on Material for Preparing Bank Reconciliation Reports for Vocational School Students. Journal of Education and Culture, 2(1), 135–146. https://doi.org/10.24832/jpnk.v2i2.588.

Hidayat, F., & Nizar, M. (2021). ADDIE MODEL (ANALYSIS, DESIGN, DEVELOPMENT, IMPLEMENTATION AND EVALUATION) IN LEARNING ISLAMIC RELIGIOUS EDUCATION. JIPAI: Journal of Innovation in Islamic Religious Education, 1(1), 28–37. https://doi.org/10.22236/JPI.V11I1.5033.

Hidayati, N., Hani Saputro, Z., & Lestari, T. (2022). Implementation of Project Learning at Driving Schools in the Digital Era. Journal of Education and Teaching (JET), 4(1), 68–82. https://doi.org/10.51454/jet.v4i1.200.

Hulukati, W., & Rahmi, M. (2020). Character Evaluation Instrument for Early Childhood Education Teacher Education Program Students. Journal of Obsession: Journal of Early Childhood Education, 4(2). https://doi.org/10.31004/obsessi.v4i2.468.

Kahfi, A. (2022). Implementation of the Pancasila Student Profile and its Implications for Student Character in Schools. DIRASAH: Journal of Islamic Basic Thought and Education, 5 (2), 138-151. https://doi.org/10.51476/dirasah.v5i2.402.

Kanti, FY, Suyadi, B., & Hartanto, W. (2018). Development of Digital Comic Learning Media on Basic Competencies in Payment Systems and Payment Instruments for Class X IPS Students in Man 1 Jember. JOURNAL OF ECONOMIC EDUCATION: Scientific Journal of Educational Sciences, Economic Sciences and Social Sciences, 12(1), 135. https://doi.org/10.19184/jpe.v12i1.7642.

Karo-Karo, IR, & Rohani, R. (2018). Benefits of Media in Learning. AXIOMA Journal of the Mathematics Education Study Program, Islamic University of Jember, 7(1). https://doi.org/10.30821/axiom.v7i1.1778

Kurniawaty, I., Faiz, A., & Purwati, P. (2022). Strategy for Strengthening the Profile of Pancasila Students in Elementary Schools. Educative: Journal of Educational Sciences, 4(4). https://doi.org/10.31004/edukatif.v4i4.3139.

Kustandi, C., & Darmawan, D. (2020). Learning Media Development: Concepts & Applications of Learning Media Development for Educators in Schools and Communities. Kencana.

Kustianingsari, N., & Dewi, U. (2021). Development of Digital Comic Media in Indonesian Language Subjects with the Environmental Theme Our Friends Text Material for Human and Environmental Stories for Class V Students of SDN Putat Jaya III/379 Surabaya. Journal of Educational Technology Students, 6(2), 1–9.

Lestari, AF, & Irwansyah. (2020). Line Webtoon as a Digital Comic Industry. Journal of Communication Studies, 6(2), 134–148. https://doi.org/10.35308/source.v6i2.1609.

Mabsutsah, N., & Yushardi, Y. (2022). Analysis of Teacher Needs for STEAM-Based E Modules and Independent Curriculum on Global Warming Material. Journal of Mathematics and Natural Sciences Education, 12(2). https://doi.org/10.37630/jpm.v12i2.588.

Megantari, KA, Margunayasa, IG, & Agustina, AGT (2021). Learning Natural Resources Through Digital Comic Media. Journal of Elementary School Teacher Education Department, 9(1), 140. https://doi.org/10.23887/jjpgsd.v9i1.34251.

Miftakhuddin, Kamil, N., & Hardiansyah, H. (2022). Implications of Fleming's Four Learning Modalities for the Implementation of the Independent Curriculum in Elementary Schools. Sangkalemo: The Elementary School Teacher Education Journal, 1(2), 38–49. https://doi.org/10.37304/sangkalemo.v1i2.

Ngazizah, N., & Laititia, T. (2022). Development of Learning Media using Local Culture Based Comics to Strengthen Character in Accordance with the Profile of Pancasila Students at Elementary School Level. Hero University Journal, 4(4). https://doi.org/10.31004/jpdk.v4i4.5446.

Nugraha, D., & Octavianah, D. (2020). 21st Century Literacy Discourse in Indonesia. Edutama Education Journal, 7(1), 107. https://doi.org/10.30734/jpe.v7i1.789.

Nuraeni, MI, & Habibi, MW (2021). Development of Science Teaching Materials in Comic Form on Excretory System Material for Middle School/MT's Class VIII. Experiment: Journal of Science Education, 1(1). https://doi.org/10.18860/experiment.v1i1.11116.

Nurjanah, I., & Rahayu, I. (2022). Digital Comics Based on Indonesian Cultural Diversity as a Literacy Media for Elementary School Students. 9(July), 98–107. https://doi.org/10.33603/deiksis.v9i2.8230.

Nurrita, T. (2018). Development of Learning Media to Improve Student Learning Outcomes. MISYKAT: Journal of Al-Quran, Hadith, Sharia and Tarbiyah Sciences, 3(1), 171. https://doi.org/10.33511/misykat.v3n1.171.

Parera, R. (2021). Development of Comic Media to Improve the Moral Development of Class IV SD/MI Students. Angewandte Chemie International Edition, 6(11), 951–952., 465, 106–111.

Pebrianti, F. (2019). Teachers' Ability to Create Simple Learning Media. Proceedings of the National Seminar on Language Month (Semiba), 93–98.

Pinatih, SAC, Putra, DBK, & Semara, N. (2021). Development of Digital Comic Media Based on a Scientific Approach to Natural Science Content. Journal of Educational Research and Development, 5(1), 115–121. https://doi.org/10.23887/jppp.v5i1.32279.

Pitriani, NW, Suardika, IWR, & Wayan, WI (2013). The PBI Learning Model Based on Balinese Culture Influences the Mathematics Learning Outcomes of Class IV Students at SD Gugus III Sukawati. Pulpit PGSD Undiksha, 1(1). https://doi.org/10.23887/jjpgsd.v1i1.1053.

Purnamasari, NL (2020). Addie's Method for Developing Interactive Media Adobe Flash on Tik Subjects. Journal of Education and Learning for Elementary School Children, 5(1), 23–30. https://doi.org/10.29100/jpsd.v5i1.1530.

Rahmadayanti, D., & Hartoyo, A. (2022). Portrait of the Independent Curriculum, the Form of Independent Learning in Elementary School. Basicedu Journal, 6(4). https://doi.org/10.31004/basicedu.v6i4.3431

Riastini, PN, Sriwijnyani, NM, Suryadarma, I., & Wangid, MN (2020). Innovation in Elementary Schools: Engaging Augmented Reality and Balinese Folklore for Science Learning Aids. Universal Journal of Educational Research, 8(12), 6552–6560. https://doi.org/10.13189/ujer.2020.081220.

Riwanto, MA, & Wulandari, MP (2018). Effectiveness of Using Digital Comic Media (Cartoon Story Maker) in Learning Themes Always Save Energy. Pancar, 2(1), 14–18.

Rohmanurmeta, FM, & Dewi, C. (2019). Development of Environmental Conservation Digital Comics Based on Religious Character Values for Thematic Learning for Elementary School Students. MUADDIB: Educational and Islamic Studies, 9(2), 100–109. https://doi.org/10.24269/muaddib.v1i2.1213.

Rosyida, A. (2019). Development of Comic Media to Improve Primary School Student Learning Outcomes. Qalamuna - Journal of Education, Social and Religion, 11(1). https://doi.org/10.5281/zenodo.3550293.

Sari, ZAA, Nurasiah, I., Lyesmaya, D., Nasihin, & Hasanudin. (2022). Wayang Sukuraga: Character Development Media Towards a Pancasila Student Profile. Basicedu Journal, 6(3), 3526–3535. https://doi.org/10.31004/basicedu.v6i3.2698.

Sedana Putra, IGA, & Semara Putra, DKN (2021). Educational Comics Oriented to Children Learning in Science on Science Content in Elementary Schools. Journal of Pedagogy and Learning, 4(1), 81. https://doi.org/10.23887/jp2.v4i1.32434.

Somantri, D. (2021). 21st Century The Importance of Teacher Pedagogical Competence. Equilibrium: Journal of Educational and Economic Research, 18(02), 188–195. https://doi.org/10.25134/EQUI.V18I2.4154.

Sukmanasa, E., Windiyani, T., & Novita, L. (2017). Development of Digital Comic Learning Media in Social Sciences Subjects for Class V Elementary School Students in Bogor City. JPsd (Primary School Education Journal), 3(2), 171–185. https://doi.org/10.30870/jpsd.v3i2.2138.

Sukmanasa, Elly, & Windiyani, T. (2017). Development of Digital Comic Learning Media in Social Sciences Subjects, Material on Events Surrounding the Proclamation for Class V Students of State Elementary Schools in Bogor City. 1–7.

Sukmanasa, Windiyani, & Novita. (2017). Development of Digital Comic Learning Media in Social Sciences Subjects for Class V Elementary School Students in Bogor City. Journal of Elementary School Education, 3(2). https://doi.org/10.30870/jpsd.v3i2.2138.

Supartayasa, IKR, & Wibawa, IMC (2022). Learning the Water Cycle with Digital Comic Media Based on Tri Hita Karana. Journal of Pedagogy and Learning, 5(1), 127–137. https://doi.org/10.23887/jp2.v5i1.46279.

Suwarti, S., Laila, A., & Permana, EP (2020). Development of Comic Media Based on Local Wisdom to Determine the Message in Fairy Tales for Elementary School Students. Elementary Education Professions, 7(2), 140–151. https://doi.org/10.23917/ppd.v7i2.11553.

Suweta, M. (2020). Balinese Culture in the Context of Cultural Tourism Development. Cultore, 1, 14. https://doi.org/10.55115/cultoure.v1i1.568.

Syahmi, FA, Ulfa, S., & Susilaningsih. (2022). Development of Smartphone-Based Digital Comic Learning Media for Elementary School Students. JKTP: Journal of Educational Technology Studies, 5(1), 81–90. https://doi.org/10.17977/um038v5i12022p081.

Syahputra, E. (2018). 21st Century Learning and Its Application in Indonesia. Proceedings of the National Seminar on SINASTEKMAPAN, 1. https://doi.org/10.31004/basicedu.v6i2.2082.

Syarah, M. (2022). Development of Kodya Learning Media (Digital Comics for Cultural Diversity) Theme 6 Subtheme 1 during the Covid-19 Period in Class IV SDN 100310 Pargumbangan.

Tegeh, IM, Jampel, IN, & Pudjawan, K. (2014). Development Research Model. Ganesha University of Education.

Wahyudin, AY, Jepri, D., Simamora, MW, Pratiwi, IW, & Rina, A. (2020). The use of toondoo digital comics in middle school English learning. Journal of social and technology for community service, 1(1), 1–6. https://doi.org/10.33365/jta.v1i1.673.

Wanti, A., Khairan, & Prajana, A. (2019). Analysis of Teachers' Level of Understanding of the Use of Information Technology in Vocational Schools in Aceh Besar Regency. Journal of Information Technology Education, 3(2). https://doi.org/10.22373/cj.v3i2.6281.

Widana, INS, Sumaryani, NP, Ayuning, NLW, & Pradnyawati. (2018). Triggering Critical Thinking Abilities and Biology Learning Outcomes through the Blended Learning Model Assisted by Digital Comics. Goldscience, 7(1), 38–48. https://doi.org/10.5281/zenodo.1407735.

Widiana, IW, Renda, NT, Dewi Utami, NLMS, & Bayu, GW (2019). Development of Kolok-Friendly Teaching Materials with Cultural Insights on Social Studies Learning Outcomes and Attitudes of Love for Balinese Culture. Journal of Educational Research and Development, 3(3), 295. https://doi.org/10.23887/jppp.v3i3.22558.

Wijaya, SN, Johari, A., & Wicaksana, EJ (2020). Development of Digital Comic Learning Media Based on Indonesian Hero Characters on Blood Circulatory System Material. Biology Didactics: Journal of Biology Education Research, 4, 67–78. https://doi.org/10.32502/dikbio.v4i2.2582.